

JOURNAL  
OF THE  
Association of American Medical Colleges

Volume 15

JANUARY, 1940

Number 1

**The Challenge to Medical Education\***

WILLARD C. RAPFLEY

President, Association of American Medical Colleges and Dean, Columbia University  
College of Physicians and Surgeons  
New York City

The annual meetings of the Association afford the opportunity for constant appraisal of our educational program in relation to the national needs which they aim to serve. In these days of rapid change in economic, social, professional and educational fields we must be particularly alert to recognize the widening obligations of medicine in the society of which we are an integral part, without impairing those elements which the experience of the past and sound principles of education have proven to be fundamental. Those responsible for medical education are probably in a better position than any other group to evaluate the significance of these changes as they relate to our problems. This point of vantage only increases our obligations.

Medical education is moving forward in several major fields. The increase in scientific knowledge and skills on which sound diagnosis, treatment and prevention of disease and disability must be based demands a variety of different types of trained personnel. Even in the recent past the medical needs of patients, in the light of the knowledge which existed then, were usually relatively simple. A well trained and experienced physician could be expected to provide a large part or all of the professional services indicated. Today, adequate medical care often requires hospitalization, x-ray examinations, laboratory determinations, intensive clinical studies, the aid of consultants or treatment by specialists. Increasingly, it has become a cooperative endeavor requiring the knowledge, judgment and skill of several physicians often of widely different training and experience and the employment of facilities and technical aids which the individual physician cannot be expected to provide.

The capital investment in facilities for medical care, provided almost entirely from governmental, philanthropic and other public sources, amounts to about \$23,000 per physician. It represents a financial interest in medical services which is not always recognized in discussions of the economic factors in medical care and explains, in part, the voice of lay and governmental agencies in policies affecting the use of the facilities provided by these funds. The need of these

\*Presidential Address delivered at the Fiftieth Annual Meeting of the Association of American Medical Colleges held in Cincinnati, Ohio, October 23-26, 1939.

essential services and facilities additional to those of the general or family physician has a far reaching significance in medical education as well as in medical care.

#### ENVIRONMENTAL INFLUENCES

The conditions and accompanying strains of present day living have a definite effect on the health of the individual. It is well recognized by those familiar with these problems that serious disability often arises from the impact of environmental factors. The social, economic and emotional influences on the health of the individual have had far too little attention although they represent the essential contributing elements in many illnesses and are important in the diagnosis, prognosis and therapy of a large proportion of medical problems. Insufficient emphasis on these phases constitutes one of the major defects of medical education and medical services, developed as they have been in recent years so largely on the more objective laboratory and technical advances.

#### ECONOMIC FACTORS

Another field in which notable changes are occurring is that of the relationships of medicine to the larger problems of economics and community welfare. Modern medical care can be provided only by physicians working with the necessary facilities, consultants, specialists and ancillary aids. Widespread public recognition of the place of health in individual, community and national life is emphasizing the importance of a more satisfactory distribution and utilization of existing personnel and facilities and the creation of new units where necessary to meet the needs of every section of the population, economic as well as geographic.

Information is available which gives reasonably clear definition of the medical needs in various communities and the methods by which those needs can be met. In many instances, the coordination of existing efforts, the elimination of unnecessary competition and duplication and the mobilization of public and financial support would provide an adequate program of medical and health services. There is need for sound regional planning by competent medical and community leaders to secure the elements now recognized as essential for the health protection of any given area of the country or group of the population. Failure of the medical profession in the immediate past to visualize these broad community needs and to provide leadership in solving them explains why so many programs have been planned and initiated by governmental and nonmedical organizations.

There is no need to review at this moment the numerous governmental and nongovernmental programs aiming to improve or provide medical care and other health services for the country. The true needs of the situation are undoubtedly somewhere between the claims of the governmental bureaus, on the one hand, and those of the spokesmen of the medical profession, on the other. The solution would seem to be an accurate appraisal of the actual local needs of each area and a sound program of assistance based on full utilization of regional resources, voluntary as well as governmental, and the creation of new facilities and personnel where necessary to insure a reasonably adequate health service for every community.

It is generally recognized that certain groups of the population and areas of the country cannot themselves finance adequate programs of public health and medical care and that they must be assisted. This is the basis for the proposals of grants-in-aid from the Federal government. The success or failure of any such program of assistance will depend, in the last analysis, on the quality of the services rendered and the methods employed to secure and continue a high standard of excellence. If the Federal government is going forward with plans now under consideration, the most satisfactory agency for carrying out the program would be a Department of Health with an Advisory Council comprising leaders of medicine, public health, hospitals, medical education, dentistry and other professional groups. The program developed would bring the support of professional and educational organizations. The central group should be made responsible for the study of requests for medical and public health assistance and for disbursements. Some plan of this character would remove the appropriations from direct political control and place the expenditures under the guidance of a board of outstanding representative leaders which would assure the professions, hospitals and the public that the expenditures would be made where they are most needed and that the quality of the services would be maintained. The proposal, if adopted, would also result in coordinating the multiple, overlapping and competing governmental bureaus and departments in Washington now dealing with portions of the health program.

These developments are of vital significance to medical education. While it is not necessary to predict the exact form which medical care of the future will assume, even though the general features are indicated, it is important that every medical student and physician be prepared psychologically (and emotionally as well) for adjustments in the relationships of the doctor to the changing professional, economic and social conditions. Each should have some appreciation of the manner in which he individually and the profession as a whole should function to meet current and future medical needs of the country. In passing, it is well to emphasize that any plan of organizing and financing medical care for a given community, whether developed from within the profession or imposed on it from without, should, in the public interest, place the crucial responsibilities on trained physicians and provide appropriate rewards for superior ability. The type of student who studies medicine and becomes the physician of the future is governed to a considerable extent by the professional opportunities and the public recognition accorded the physician. The form and control of organized medical care, therefore, will be an important and, in many instances, the determining consideration in the decision of well qualified students to study medicine.

#### PLACE OF MEDICAL EDUCATION

Medical education should be considered in relation to the broad scientific, environmental and economic considerations to which brief reference has been made. Medical schools are charged now by law, public opinion and accepted usage with the responsibility of recruiting and training a sufficient number of

competent physicians for this country and constitute the recognized avenues of entrance to the medical profession on which will rest so largely the future medical care and health of the nation. Success in this important undertaking will depend on the types and quality of students who enter the profession. If the university and medical school authorities have a grasp of the broad public aspects of medical care, the selection and training of students will be based on something more than laboratory sciences and technical preparation and will emphasize the value of an adequate general education as a prerequisite for the study of medicine. Unfortunately, individual schools and certain regulatory bodies have established requirements which tend to defeat the objectives of sound medical education.

Many medical schools have inserted demands above the generally accepted minimum standards. Roughly speaking, a student would need six or seven years of college study to satisfy the entrance regulations of all of the medical schools, including the subjects which some recommend as desirable but which, in view of the large numbers of applicants, often have the same force as requirements. The opinion is growing that college preparation for medical studies should be general in character, not preprofessional or pre-anything for that matter. The colleges and universities should be permitted to serve that objective without interference from or regulation by outside professional bodies. The need of a variety of different kinds of personnel and training in the health program suggests that medical students be selected on the basis of their individual and personal qualifications rather than on the enumeration of subjects taken or the length of their preparation. This is a subject which needs joint action by the Association of American Medical Colleges and college and university organizations. It is one topic on which the Advisory Council on Medical Education will make recommendations shortly.

#### THE INTERNSHIP

When the medical course was largely didactic, it could not provide practical experience and responsibility sufficient to equip the student to begin the independent practice of medicine. The internship was developed to meet that need, although it is frequently now used as a convenient means of securing a house staff. Twenty-one states require an internship for licensure and thirteen medical schools have a similar requirement for graduation. In almost all instances, however, no educational supervision is provided. Opinion is now rapidly developing that the intern period should become a part of the basic preparation for medical practice and that supervision and direction of the hospital training should be a joint responsibility of the medical schools and those hospitals which provide or can arrange a satisfactory educational experience.

It is well known that there are wide variations in the quality of training offered in hospitals approved for internships and that many of the accepted services do not meet educational standards. Probably the internship is the most defective segment of medical education at present and it will have to be corrected in many hospitals before it can reach a real educational level and before any satisfactory program of graduate training can be instituted.



The answer to this vital phase of medical education is a cooperative program of the medical schools, state licensing boards and those hospitals which can provide an adequate educational experience in the internship. This will require an intimate cooperation of hospitals and medical schools in each region, with united action on such matters as intern selection and instruction and the coordination of the hospital period with the clinical clerkships of the medical course.

The integration of the medical school and hospital phases of the basic preparation can be carried out if the medical schools of each of the natural geographic sections of the country are grouped into regional committees to evaluate the internships of their respective areas on the basis of actual first hand study and knowledge of the hospitals of the neighborhood. While this is a considerable task and will require time and wisdom to accomplish, it is necessary if the internship is fully to serve its function. The suggestion also has the merit of requiring the officers of the schools to become more familiar with the educational opportunities and to help in the programs of nearby hospitals. Hospitals of each area that are found to be satisfactory should be listed in the central office of the Association. Such a list would be available to every medical school and to other interested groups. Many details and difficulties suggest themselves but most of them are not serious. A close educational cooperation between the medical schools and leading hospitals of each section would greatly benefit the hospitals and enormously strengthen the medical program of the entire country. Such a plan should result in significant changes in school as well as in hospital procedures and should be kept flexible to meet variations in the facilities and instructional personnel of individual hospitals and the needs of different students. The emphasis should be on standards rather than standardization.

As a part of this undertaking, the state boards of medical examiners should be requested to require an internship under educational supervision as a prerequisite for admission to the licensing examination, such a requirement to become effective at a date in the future mutually agreed on by the schools and boards. The intern period should be focussed without rigid definition of the length of periods on those disciplines which form the basic preparation to begin general practice and now constitute the major emphasis of the medical course, leaving training in the specialties to the graduate field.

An internship can be satisfactory, however, only when the staff is competent to provide instruction and take the responsibility by means of a director of educational activities, whether on a voluntary or salaried basis is immaterial, or a strong committee of the staff to coordinate the instructional program and to make such training effective. This conception of the internship and its completion of the undergraduate course will require extensive modification of existing arrangements in many hospitals, including a considerable number of teaching institutions, and the affiliation with medical schools of those hospitals which can provide satisfactory training but which are not now closely associated. The plan would require the cooperation of those state medical boards which

have established rigid regulations of the intern period and have prescribed numerous requirements which tend to impede the efforts to make the internship a true educational experience.

#### LICENSURE

There is practically unanimous agreement in this country on the standards of medical education and licensure to practice. Because of technical rulings and minor differences between requirements of different states, however, the training and licensure in one state is often not recognized in another although their standards may be identical. Without individual states surrendering in any way present responsibilities, it is to be hoped that, before long, we may have a more liberal interstate endorsement of credentials and licensure between those states which have equal standards. There is a real need of simplifying, to the advantage of students, medical schools, state boards and the country at large, this important feature of medical education and practice. The problems of medicine and of medical education are not confined to state boundaries but are national in scope. Within the limitations of legal regulations a cooperative program between the medical schools and state medical boards could easily solve this anomalous situation.

#### GRADUATE MEDICAL EDUCATION

The training of a sufficient number of specialists to meet the needs of the country according to the standards of the American Boards, the Advisory Board for Medical Specialties and the Council on Medical Education and Hospitals of the American Medical Association can be accomplished in many instances only by modifications in existing intern services and the development of new facilities and opportunities in the hospitals. There is substantial agreement among all groups of specialists on the standards of training to be enforced after 1942. Increasing pressure will be brought to bear on the medical schools and hospitals by the numerous professional organizations to provide facilities, instruction and opportunities for such training. Satisfactory plans of graduate teaching can be carried out, however, only in those institutions in which the hospital services are properly organized, the staff is competent to provide real instruction and is willing to organize itself and take the responsibility for teaching.

The program should include close cooperation of the hospitals and medical schools to provide preparation in the medical sciences related to the specialties as well as adequate supervised clinical training. Graduate training is an integral part of the whole field of medical education. The medical faculties should assume leadership in formulating plans and coordinating opportunities for this rapidly developing phase of training in cooperation with professional bodies, the hospitals and the various boards of specialists.

#### POSTGRADUATE INSTRUCTION

More at the periphery of our responsibilities but still in the orbit of our interest lies the great field of postgraduate education for physicians in active practice, to which the schools and staffs of teaching hospitals are making helpful contributions. The extent to which the schools select students of intellectual

promise and equip them in the elements of self-education and independent thinking will determine to a considerable measure the needs, methods and success of practitioner instruction as well as the level of competency of the rank and file of the profession in the future. The important public aspects of this continuation of medical education and the efforts of governments abroad and of our own groups in this country to keep physicians in practice abreast of current knowledge need not be presented here.

#### CONCLUSION

Those responsible for medical education conceived in the public interest cannot escape the implications of their task in its entirety. It is necessary that they assume their full share of responsibility in every essential segment of the program if they are to retain that public and professional confidence to which medical education is entitled. They must assume leadership in coordinating the isolated efforts of multiple agencies dealing with portions of the whole program.

In keeping with this attitude, and the action of the Association of American Medical Colleges at the Syracuse meeting last year (1938), it is gratifying to report that an Advisory Council on Medical Education has been created. It comprises representatives of thirteen national organizations of hospitals, medical schools, universities, colleges, licensing boards, public health, specialty boards and professional bodies. A report on its activities and program will be given at the executive session tomorrow evening. The general objective is to overcome by joint action the duplication, overlapping, competition and conflicting efforts of individual agencies through the first organization of its kind in this country which is representative of the various groups directly concerned with the education and licensure of physicians.

The immediate problems of medical education appear, at first glance, to be insignificant in the face of the titanic convulsion from which our civilization is suffering. Yet it is this very uncertainty in the world that throws on America the responsibility of keeping democratic processes alive and of holding high the ideals and standards in every field of education. During this twilight in human affairs, we are, for the moment, almost the sole trustees of those principles of democratic institutions and those public functions of true education for which men have struggled for centuries in all countries of the world. It is our obligation to conserve and preserve the rich heritage from the past and, when the clouds lift, to help restore those fundamental concepts of life and standards of scholarly achievement which may well be the salvation of future society. It is an obligation which every citizen, institution of higher learning, and profession worthy of the name should assume. The medical schools, the universities and the medical profession of this country are ready, with courage and loyalty to those ideals which have characterized our profession through the centuries, to carry high and brilliantly lighted the torch of knowledge and of public service of the highest order. We of this Association dedicate ourselves anew to the task of insuring to the people of this country that our standards will be continued and strengthened and that the medical schools are ready to assume their full obligations in the broadening field of medical education.

## The Internship and the Residency\*

ROBIN C. BUERKI

Director of Study, Commission on Graduate Medical Education  
Chicago, Illinois

In opening, may I state clearly that my remarks today represent my own opinions. They should not be construed as binding the members of the Commission on Graduate Medical Education in any manner. I am presenting to you some of the results of numerous conversations with most of the members of your organization and with other physicians throughout the country. These remarks are not statements of present practices, but rather a compilation of the opinions and aspirations concerning the directions in which we shall move in the future.

While I may express what appear to be certain definite convictions, I wish to assure you that these are not fixed ideas. Your comments, criticisms and suggestions will be cordially received, thoughtfully considered and woven into the fabric of my report to the Commission. No other organization in the United States has the clarity of insight into this problem nor the depth of understanding regarding it that is possessed by the members of your group. Therefore I especially appreciate an opportunity to discuss these problems with you.

### THE INTERNSHIP

The first requirement in a discussion of the internship and the residency is to define the various divisions in the field of graduate medical education, using this term, for the moment, in a loose and broad sense. The internship is that period of practical educational experience following completion of the medical school course which prepares a man for general practice or lays a foundation on which he can build his preparation for the practice of a specialty.

The residency is the period of educational training following the internship which prepares a man to begin the practice of one of the specialties of medicine. This is graduate medical education in the strict sense of the term.

Postgraduate education embraces all those shorter formal and informal educational opportunities which enable a practitioner to keep abreast of the developments in his own field of practice but do not attempt to qualify him for entering a new field of practice.

It is felt by many that the internship today is one of the weakest parts of our educational program. This weakness results from two principal causes. The first is lack of a clear definition of the internship, its purpose, its scope and its methods. The second is the widespread lack of an organized educational program for the internship that is adequate to fulfill the proper function of this period. The purpose of the internship, i.e., training for general practice or for entrance

\*Read at the Fiftieth Annual Meeting of the Association of American Medical Colleges, held in Cincinnati, Ohio, October 23-25, 1939.

on a residency, has already been defined. The scope of the internship must now be narrowed so that it may focus most effectively on this purpose. This requires the exclusion from the internship of any attempt to train specialists. The intern, for example, should not be allowed to learn the operative technics of a mastoidectomy. Such teaching should only be given during the residency period. If this is true of the internship, it is even more true of the courses offered to third and fourth year medical students, which certainly should not include the teaching of special technics. Certain of your members have also been critical of those basic science departments which teach as though they were training Ph.D.'s in basic science rather than offering men a broad understanding of the basic sciences as they relate to the entire field of medicine.

Several of your members have pointed out that, when this broader conception of the educational needs of the medical student has been clearly visualized, it will assist in more closely integrating all of the departments of the medical school. This will free the time of the medical student, thus giving him opportunity for a more effective clinical clerkship. By so doing, the periods of internship and clinical clerkship can be so coordinated that the intern will be able to obtain all the further experience necessary to begin general practice in a one year period. This is fortunate because today two-thirds of the internships are one year in length and there is a growing tendency to make the second year of the two year services a part of the residency.

The content of the internship should be the same for the man who plans to enter general practice and for the man who hopes to take a residency and then begin the practice of a specialty. Since the internship rounds out the medical school training and is basic preparation for any form of medical practice, even though the degree is usually granted before the beginning of the internship, medical schools should take greater responsibility for the character and content of the education provided during this period. There are various ways in which medical schools could exercise this responsibility and could stimulate and assist hospitals to meet their educational obligations to interns. Were hospitals under guidance to develop a truly educational intern program, medical schools might well acknowledge such achievement by special recognition.

Several members of your group have suggested that the trend toward a better educational program for interns could be strengthened as well as dramatized by the employment of an educational director of interns by the hospital. If he possesses proper background and experience, a medical school might offer him some form of faculty appointment. The employment of an educational director would not eliminate the intern committee, whose power and responsibilities should actually be increased. In those instances where he receives a medical school appointment, this would act as a definite stimulus to improvement in the educational content of the internship and residency, and would greatly encourage hospital medical staff members, administrators and trustees. It would also help to bridge the gap that too often exists between the medical school and the professional staff of the hospital.



The emerging concept of the rôle of the general practitioner would of necessity limit the internship to (1) general medicine including pediatrics, (2) normal obstetrics and (3) the medical aspects of general surgery with sufficient actual experience in general surgery to prepare the intern to handle minor accidents and to offer emergency treatment. So that he will avoid the mistake of thinking that technic alone can supply the depth of understanding necessary to handle major cases in the specialties properly, he should not be assigned to these services nor taught any of the technics of the specialties. The special services in the hospitals should be covered by residents only.

Stress should be laid on teaching the intern the importance of studying the patient before major pathology develops; hence, service in the outpatient department is particularly valuable. This service also is the closest parallel to office practice which he can obtain in a hospital. Therefore, the medical staff could well take greater interest in outpatient work and could make sure that some of the best men on the staff regularly serve in this department.

The stress and strain of modern society are constantly increasing the need for greater emphasis on functional disturbances. In their teaching, as well as their practice, all departments should stress the vital rôle which these disturbances play in the causation and cure of disease.

Without decreasing the emphasis placed on the underlying pathology, the staff should lay greater emphasis on the normal physiology, thus making it easier to recognize departures from the normal. This will improve the intern's ability to discern disease in its earliest stages.

Running through the intern's entire year of work should be a constant emphasis on public health and preventive medicine, both from the standpoint of the individual and of the community.

In the past, both in the medical school and in the internship, too little attention has been paid to the detection and treatment of chronic disease. With the steady aging of the population and the scientific advancements in our knowledge of the problems of old age, this field, which is so important as a health service and as an enlarging segment of general practice, should not be neglected.

The intern should be urged to do routine laboratory work on his own patients in order to familiarize himself with these procedures and, even more important, to form the habit of correlating physical and laboratory findings. Through consultation with men in the special fields, he should learn the fundamental facts about such fields which are necessary for a general practitioner to know.

In order to give greater direction and impetus to the educational program, one hour each day should be set aside for clinical conferences, clinicopathologic conferences, clinicophysiologic conferences, pathologic conferences, radiologic conferences and journal club, in addition to medical staff meetings. Preferably, the same hour each day should be chosen for these conferences. While medical staff members would be welcome at all such meetings, their attendance would not be compulsory. Under proper direction and guidance, many of these conferences

could be conducted by the residents, and even by the interns themselves. As the value of such conferences is demonstrated, however, the medical staff will take an increasing interest in them.

As a step in bringing the material covered by the intern forcefully to the attention of the educator, whether in a hospital or in a medical school, and thus improving the educational content of the internship, formal educational records should be kept for each intern and reviewed by the staff on completion of his service. A copy of this record of his work should be sent to the medical school from which he was graduated.

In offering this fairly detailed statement on the internship, there is no intent to imply that only one type of internship is acceptable. Various other methods of organization may well be developed which would achieve the same objective.

As science makes the need for the services of a modern hospital increasingly evident, the tendency for group practice, organized around such a hospital, will receive added stimulus and will become a much more vital factor in the care of the patient. Such groups may well include the family doctors as well as specialists in the various fields.

#### THE RESIDENCY

The residency, as was stated earlier, is designed to prepare men to begin the practice of a specialty. After 1942, the various specialty boards will require their candidates to have completed three year residencies.

The promulgation of this requirement, and the general desire on the part of many men to enter one of the specialties, have caused an enormous increase in the demand for residencies. There is today no dearth of competent men desirous of accepting appointments to good services. The total number of residencies has increased in the past six years by nearly 100 per cent, from 2,373 to 4,560. Meanwhile, the number of those residencies which are for periods of three years or longer increased in the past five years by more than 400 per cent, from 332 to 1,795.<sup>1</sup> While there are still not enough residencies of three years or longer to supply the needs of the entire country, the rate of growth has been so fast that in the near future this will not constitute a major problem.

The real problems will be to limit the number of specialists being trained to the number that is actually needed and, even more important, to make the residencies that are available truly educational in character.

In order that the resident may become a true specialist and not merely master of certain special technics, he must acquire a broad training in his specialty. This presupposes an understanding of the basic sciences fundamental to his field. In order to attain this broad background, he might well spend six months or a year in one basic science department of a medical school. He may become an assistant in the department, performing the normal duties of such a position, or he may be considered an advanced student. His work could give him some actual

1. Figures compiled from various "Educational Numbers" of the Journal of the American Medical Association.

responsibility for teaching undergraduates. The department head should endeavor to give him a real understanding of the relation of his specialty to the basic science field in which he is studying. This could be done through assigned reading and research in the application of the basic science to his field. This intimate contact with one basic science would give him an appreciation of the other basic science fields and he should be encouraged to explore them as far as his time permitted. The completion of a research project is a valuable part of the resident's training.

The basic science portion of the resident's training need not be given in one block period, but can be spread throughout the entire residency.

It is realized that in the more limited specialties it may be necessary to offer special courses in the application of all the basic sciences to the particular specialty.

Objection may be raised that there are not enough opportunities available to provide basic science training to all residents. If fifty of the leading medical schools would each make provision for a one year assistantship for two men in each of the following departments—*anatomy, bacteriology, biochemistry, pathology, pharmacology and physiology*—an adequate number of places would be made available.

This special period devoted to the basic sciences is not enough. During the clinical portion of his residency, the staff men should encourage discussion of the application of the basic sciences to their specialties and should point out these relations when they are not noted by the resident himself.

It is realized that one of the difficulties in the development of a truly educational internship or residency is to find clinicians capable of teaching the basic science aspects of their work. The same situation existed twenty years ago in relation to the teaching of pathology. The first step toward solving this problem was to point out the need for such teachers. Already men who are able to provide this type of teaching are being trained through the good residencies now available. As the demand for their services becomes clearly recognized, their number will increase.

The residency is designed to give the man a full understanding of the background of his specialty and thorough training in its particular technics. In order to emphasize its educational content, he should take part in many of the various conferences, seminars and meetings previously prescribed for the intern. While the work of the residency is a graduate discipline and its caliber should be in no way inferior to that offered to other graduate students, it is not essential, nor desirable, that all residents actually become candidates for advanced degrees. Because graduate education is essentially individual instruction, the department head should assume primary responsibility for assuring adequate educational opportunities to the resident. The educational director of interns and the intern and resident committee of the medical staff should assist in the development and maintenance of these opportunities. The resident himself should also participate in the educational program as a teacher of interns and nurses.

Those hospitals that are unable to provide an internship or residency of truly educational content may, nevertheless, improve the quality of their service by engaging a young physician who has completed his internship but is not desirous of entering practice immediately. Since such a position would not provide systematic education and would not prepare him for entrance into one of the specialties, it should carry a salary comparable to the amount he would earn in private practice.

Those hospitals that have made their internships and residencies true educational disciplines might well receive formal recognition from a medical school. Medical schools might combine with other interested agencies in the development of an approval program for hospitals that meet high standards of educational content. If medical schools feel that they can broaden the scope of their responsibility to include some supervision and guidance for the internship and residency, as well as basic science instruction in the latter period, they will find that this will not involve them in prohibitive costs. In one case where a hospital has arranged for its residents to spend a year in one of the basic sciences in a medical school, the hospital continues to pay the resident's allowance during this period, even though he has no assigned hospital duties. The basic science department finds his work a distinct benefit to the department.

While all hospitals may not be able or willing to follow this plan, the ones that do will find it distinctly to their advantage to develop educational programs of the type here described. Such programs are the best possible stimulus to a high quality of medical service in the hospital and thus enhance the institution's reputation with the profession and the public. In addition, hospitals looking into the future realize also that men trained through such educational programs will help to raise the level of quality of the medical staff.

If a hospital had no educational program either for interns or residents, it could develop such a program at a cost of from 15 to 25 cents per patient day. Where such programs cannot be financed in any other way, this cost may properly be assessed against the patient since the program will contribute so vitally to improving the quality of his care, which, after all, is the primary objective of all persons in the medical field.

The tentative program here outlined requires the cooperation of physicians, hospitals and medical educators. Your sympathetic understanding and leadership are particularly important in the development of internships and residencies that can meet high standards. The primary purpose of any such program is to improve the quality of care rendered to the patient.

In closing I would like to read the basic principles of the internship, the residency and postgraduate medical education approved by the Commission on Graduate Medical Education at its meeting held in Cincinnati last Saturday.

#### THE INTERNSHIP

1. The internship should be regarded as a part of the basic preparation for either beginning the general practice of medicine or undertaking advanced training in a specialty.

2. The internship should provide a real educational experience and a period of clinical responsibility under supervision which aims to complete the clinical clerkship of the medical course.
3. The internship should be an important responsibility of the staff and be under the direction of those members who are competent to provide the necessary instruction.
4. The internship should be a joint responsibility of the medical schools and of those hospitals which can provide a satisfactory completion of the fundamental preparation for medical practice.

#### THE RESIDENCY

1. The residency should be the most satisfactory method of graduate training for specialized fields of practice.
2. The residency should be organized as a real educational experience provided by qualified teachers who are willing to assume responsibility for adequate instruction.
3. The residency should provide preparation in the sciences basic to the specialty as well as sufficient clinical experience under supervision to insure real competence.
4. The residency should be a joint responsibility of medical schools and of those hospitals able to provide residencies of a satisfactory educational character.

#### POSTGRADUATE MEDICAL EDUCATION

1. Postgraduate medical education should aim to keep the physician abreast of current knowledge in his present field of practice.
2. Postgraduate medical education should avoid training for a specialized field of practice.
3. Postgraduate medical education divides itself into two independent categories which should be clearly differentiated, namely:
  - (a) instruction for general practitioners,
  - (b) instruction for those who are already qualified as specialists.
4. Postgraduate medical education should be offered only by those who are qualified to provide satisfactory instruction.
5. Postgraduate medical education should be coordinated by existing medical, health and university agencies in each state which are concerned with this phase of medical education.



## DISCUSSION

DR. WILLIAM PEPPER (University of Pennsylvania): In 1913, I read a paper before this august body on the subject of internships. That is twenty-six years ago and I should think establishes some sort of record. I then thought I knew more about the question than I am sure I know now. At that time, I advocated that if the intern year was to be required, the state should demand the year's internship and not the medical school. I still am of the same opinion, although I must admit that the Pennsylvania Board, which demands a year's internship before a candidate may take the licensing examination, has occasionally caused me to wonder whether I was right or not. But this side of the intern problem is not touched on in Dr. Buerki's valuable and interesting paper.

I intend to limit my remarks to that portion of Dr. Buerki's paper dealing with internships. I am going to talk about that side of the question with which I, as a dean of a medical school, come into contact. I want to point out that local conditions vary so much in different medical schools and in different parts of the country, that it is very difficult to devise a plan or system which will be effective everywhere.

It makes a difference whether the medical school is in a big city or not; whether the number of graduates each year is large or small; whether the students mostly live in the state in which the school is located; or whether they come from many states; whether the school is the only one in the city or whether there are other medical schools; whether there are many hospitals in the vicinity or not. All these points have their bearing on the problem a dean must face in helping his students obtain the best possible internships.

At the University of Pennsylvania, we graduate about 130 students each year. All of them want an internship. A letter of recommendation has to be written for each student, and as they apply, on the average to three hospitals, nearly 400 letters must be sent out. Each year our graduating class is distributed among about seventy hospitals. In the past eight years, I find that they have gone to 200 hospitals scattered through about thirty-four states, the District of Columbia, Canada and Hawaii, and a few men have gone into the U. S. Army, Navy and Public Health Service. An attempt to assume some responsibility, as recommended by Dr. Buerki, over the character and content of the education provided the interns in so many hospitals, seems to me quite a large undertaking. Then, we must remember that many of these hospitals have interns from different medical schools on service at the same time. A large hospital may have graduates of a dozen medical schools come on duty every year, and if a dozen medical schools attempted to exercise some sort of responsibility over the character of the internship, there might be trouble. It is not easy to persuade hospital managers and staffs to make changes. For example, the pernicious habit which used to exist in many hospitals by which the interns were taken on duty at different periods of the year, such as July, October, January and April, has only slowly disappeared. At such hospitals, the man who graduated in June and who had to wait until January or April was out of luck.

In Philadelphia, we have seen how difficult it was to get general acceptance of the Philadelphia Hospital Association Intern Plan, a scheme which enables each student to send in a letter to a central committee, stating in order of preference the hospitals to which he has applied. The hospitals send in a letter placing the applicants in the hospitals' order of preference. The work of the committee is completed within one week. Less than one-half of the hospitals have been willing to cooperate, although each year efforts are made to persuade all hospitals to join in this excellent plan.

Dr. Buerki suggests giving some sort of faculty appointment for the proposed educational director of interns. This might easily be done in a city in which there is but one medical school and where most of the interns are graduates of that school. In Philadelphia hospitals, it might be embarrassing to decide which medical school should offer this man a place on its faculty. I can foresee possible trouble from such a plan.

Dr. Buerki also suggests that fifty medical schools make provision for one year assistantships for two men in each of the following departments: Anatomy; bacteriology;

biochemistry; pathology; pharmacology and physiology, so as to make enough places for residents to get training in the basic sciences. I do not think that this plan will meet with much enthusiasm from the teachers of these subjects in our medical schools.

I have spoken about the number of letters I now have to send out in order to help our students obtain internships, but lately the problem of our graduates seeking residencies is becoming quite a task. More than eighty of our graduates each year, while serving internships, ask me to write letters, recommending them for a residency, and as they apply on an average to about six hospitals, it means sending out nearly 500 more letters. One man sent me a list of twenty-seven hospitals at which he was trying to obtain a residency and wanted me to write to each of them. About 75 per cent of our graduates now try to get a residency.

Probably these minor criticisms of Dr. Buerki's suggestions are caused by my disinclination to assume any more responsibilities or work. With the major suggestions which he makes, looking to an improvement in the educational content of the intern year, I am heartily in accord.

Twenty-six years ago I could probably have told him how to inaugurate promptly these needed improvements. Today, I am afraid I have few practical suggestions to make.

DR. RAYMOND B. ALLEN (University of Illinois): Doctor Buerki's stimulating paper is evidence that a synthesis of the problem of the internship and residency is being achieved to a degree few dared to hope might be possible. The work of the Commission on Graduate Medical Education is a logical sequel to that of the Commission on Medical Education, the final report of which appeared in 1932. By these, and other, studies American medicine is demonstrating that it is an intelligent part of the violent social ferment of the day. The appreciation of the wide social implications of medical education and medical service is medicine's most significant contribution to contemporary thought.

The study is succeeding in bringing order out of rather confused and directionless programs of internship and residency training. The clean cut definition of what constitutes an internship, as contrasted with the undergraduate curriculum, on the one hand, and the graduate residency-fellowship disciplines, on the other, is a contribution of first importance. The recognition that the internship is an integral part of the whole program of the education of a physician and not merely an apprenticeship for practice places the internship in its proper perspective. With the objectives and content of the undergraduate curriculum being more clearly defined, with residency programs developing as true graduate disciplines and with the emerging concept of the place of the general practitioner in a modern scheme of medical service, the internship has assumed an importance which fully deserves the attention it is receiving. Undoubtedly, the interest of medical faculties in the educational content of the internship will result in better balanced and improved services.

One aspect of the problem of the residency deserves emphasis; i.e., the question of selection of residents. It is pertinent to recall here that most of the best residency and fellowship disciplines in the country are under the direct supervision and control of universities where high standards for appointment and promotion are exercised. Such institutions have no problem of graduate education for the reason that in the persons of residents they have good students. Good students will not accept appointments that do not offer promise of a well rounded training. Good students held to create opportunities. Since the appointments to such residencies are on a university basis, the most gifted and promising students usually secure appointments. From this group come most of the medical scientists, master clinicians, scholars and teachers who besides practicing a specialty are capable of making additions to medical knowledge and of advancing the frontiers of science. Most such students are thoroughly grounded in medical science and are capable of using the scientific method and have enthusiasm for it. Unless the resident has already been inoculated with enthusiasm for the scientific approach, it is doubtful if he will get a "take" during the residency period.

Even though the resident fails to have the viewpoint of a scientist, he is usually capable of learning the techniques and skills of the specialty and becoming a successful clinical specialist and so find his place as a useful citizen. We should not be misled into thinking, however, that medical science will be improved because such a physician is practicing a clinical specialty. It does not reflect creditably on our undergraduate methods that many "graduate" students are satisfied merely with opportunities to learn the skills and techniques of the specialties. It is important to distinguish clearly between the purely vocational (i.e., technical) aspects of training and the more important content which is scientific and professional in character. It is too frequently true that such facilities as are available in hospitals for serious scientific study are not utilized to the fullest extent. Why, then, should we ask hospitals and schools to provide more and better facilities and allot more time to this phase of the training of the specialist? The answer is clear that while there is need for more emphasis on medical science in the residencies, a large part of the problem of improving the residency, as well as the internship, could and should be solved, not at the graduate level, but, paradoxically, at the undergraduate level of medical education.

For too long we have been satisfied with undergraduate curricula which are excellent compendiums of existing knowledge but which concern themselves but little with the philosophy and the method underlying medical science. If all graduates in medicine really understood the scientific experimental method and had some training in its application, the problem of graduate medical education would be simple enough. Surely, it is not expecting too much that every physician, besides having skill in the art and practice of medicine, should understand thoroughly the fundamental method by which medical science, indeed, all branches of scientific learning have advanced. What is suggested here is that the teachers in our schools and hospitals who understand and practice the scientific and experimental approach to medical problems devote more of the time now used to present facts and theories in teaching the philosophy and practice of the scientific approach. The student may, and often does, forget some of the facts and theories; but if he remembers the method by which they were established, he will never be helpless in difficult medical situations nor, it might be added, will it be necessary for such a student to take "refresher" courses for he will be continuously refreshing himself in the scientific study of the problems of medical practice.

Another aspect of the internship and residency problem which cannot be over-stressed in these critical days is the responsibilities of the physician as a citizen. We will not be discharging our obligations adequately if the aim is merely to train physicians to meet the technical requirements of medical service. If we are to continue to enjoy the confidence and respect of the people, it is not enough to serve them in sickness alone. The physicians of the future, as of the past, must include social minded leaders who can take places of respect and responsibility in the councils of the community and the state. It is disturbing to realize that from five to eight years of the medical student's life are so taken up with the culture of medicine that little time remains for the broader culture of healthful living. Fortunately many students find time for their continued broad cultural and social education. The problem, again, is largely one of selection of students.

Students who have the capacity to deal with the situation at hand and the curiosity and insight to look for hidden cause and effect on the social, as well as the scientific levels will always be equal to enlarging responsibilities. More such students are needed if medical science is to retain its appointed place with all science as the strongest force of the day in shaping the civilization of tomorrow.

DR. J. A. CURRAN (Long Island College of Medicine): Dr. Buerki has covered the fundamental issues of internship and residency education in a very clear and concise manner. We all realize the extremely complicated nature of the general problem and the necessity for better crystallization of our ideas into a more effective program.

In outlining such a program, however, we should not place primary emphasis on the formulation of an ideal plan or schedule of training. Attempts at standardization and

enforcement of minimum standards, especially on a wide scale, tend to fall short of their objective. Many hospital groups may go through the motions of observing the letter of such regulations, but lack the spirit and insight to make them vital and effective.

Essential elements in successful internships and residencies must always be the idealism, ability, and teaching interest of the attending staffs. Even with what appears to be a poor program, we can conceive of an outstanding attending group giving their interns good training; but an ideal plan by itself, will never make a success with a mediocre staff. Hence, we need to give more attention, not only to the education and qualifications of attending staff physicians, but to the need for more inspiring leadership. There is no substitute for the stimulus given by a real teacher to a pupil in whom he has a genuine interest. Perhaps this is a definition of education reduced to its simplest terms. For Mark Hopkins' log we can substitute a hospital bed. It is the type of influence we have a right to expect from the chief of every hospital service.

In this connection, we cannot emphasize too strongly the importance of the organized hospital service, as an essential unit in the building up of an educational program. For example, if all of the patients admitted to medical, surgical, pediatric, obstetric, "specialty" or private services are given really thorough medical study, and receive therapeutic care of high quality; if laboratory tests are given careful evaluation, and if end results are systematically and honestly appraised at departmental conferences, in all of which the intern takes an active part, he is certain to obtain the rudiments of a sound medical training.

One of the most significant deficiencies in hospital internships not measuring up to minimum standards has been their weakness in the above particulars. One of the most valuable contributions made by the specialty boards will be the clearer distinction made between general and special practice, and, consequently, a better definition of the educational objectives of attending men responsible for the guidance of interns.

Dr. Buerki has dwelt somewhat on the problem of house staff assignment to specialty services, such as ophthalmology, otolaryngology, urology and orthopedics. Much of the difficulty has been caused by the undue importance given to mechanical operative technic. If both the visiting and intern staffs would give more attention to complete medical studies of their patients, and to follow-up appraisal of therapeutic results, and if interns were excused from much of the time now spent in the operating room, the experience could be made of definite value.

With Dr. Buerki's suggestion that the medical curriculum and the internship program could be organized and coordinated more efficiently, I think we all agree heartily. There is much reduplication of effort and wastage in present arrangements.

None-the-less, those of us working in New York are not yet willing to concede that one year of internship will be an adequate preparation for general practice, even with a drastically revised medical course. Nor is the trend in New York City away from the two year to the one year rotating internship. The former is steadily increasing in number in spite of the rapidly growing number of residencies. In any case, we are much opposed to the rigidly standardized one year rotating internships which are required by law in some states.

Instead of advocating one year internships for all, I am inclined to think we may have to urge a greater proportion of two year plans. The number of internship openings each year is increasing quite rapidly while the annual supply of medical college graduates remains at about the same level. The deficit can best be met by reducing the number of one year rotations by converting them into two year internships, and reducing the annual turnover by one half.

If academic recognition is to be given to hospitals and to directors of house staff education, we must visualize quite a different set-up throughout the country than we have at present. In baseball terms, it may result in a sort of "farm system" of associated hospitals. Certainly, it will involve a much more highly organized regional supervision of intern education than is now the case.



An illustration of the trend in this direction has been the experience of the five medical schools in New York City during the past five years. You will recall the report of our original survey of internships and residencies which we presented at the Toronto (1935) meeting. Since that time, we have kept our fund of information up-to-date by means of a survey committee whose personnel is composed of one or more representatives from the five schools. If each surveyor visits one hospital a month, it is not difficult for a group of five men to cover sixty hospitals annually. The information obtained is pooled and is used in guiding senior students seeking internships.

We have cooperated also in trying to enlist the interest of hospital trustees. With this in mind, a symposium on house staff education was held at the New York Academy of Medicine this month, to which representatives of the lay as well as the medical boards of the hospitals of the city were invited.

Dr. Buerki's experience in working out arrangements for residents to participate in the basic science activities of a medical college has been very helpful. The need is particularly acute with regard to opportunities for study of anatomical material. For such facilities, the hospitals are completely dependent on the schools of medicine.

During the past two years, we have been experimenting at the Long Island College of Medicine, with the utilization of residents from general surgery, orthopedics and roentgenology (on a part-time basis), as instructors and special fellows in the department of anatomy. So far the results have been very encouraging. The residents have done very well as instructors of freshmen, and as a reward have been allowed to carry on studies of their own. This year we required them to make their cadaver dissections during the spring trimester and the summer vacation in advance of their participation in the teaching schedule. This has greatly enhanced their usefulness as teachers, and they have gotten more out of the year's assignment.

I am very glad that an entire morning has been devoted to a subject of such importance. We cannot hope to reach definite conclusions but the points brought out in the papers and the discussions will be very helpful to the many groups studying the problem.

DR. BASIL C. MACLEAN (Director, Strong Memorial Hospital, University of Rochester) : While I cannot quarrel with Dr. Buerki's ideal of hospital internships and residencies, I venture to suggest that there is an occasional impracticability and inconsistency in his proposals. What facilities have we today in this country and in Canada for training interns? The last American Medical Association list of 734 approved hospitals included 7,332 approved internships. We know that a considerable percentage of these internships are not worth a "tinker's dam." There are listed 3,951 approved residencies in 518 hospitals and we know that a large percentage of these can be rated "very good." If one is brutally frank, however, in appraising the existing facilities for hospital resident staff training in this country and in Canada, he must admit that too often these facilities, inadvertently or otherwise, are provided as economic assets rather than as educational responsibilities. Too many hospitals are geared to the demands of the doctors who bring in the largest number of pay patients. There are too many internships where a young medical man does indifferently and without supervision the drudgery of laboratory work and record keeping for attending doctors who regard him not as a pupil or apprentice but as a potential rival in medical practice. What hope is there of getting training worth the name in a hospital where medical practice is far more economic than scientific, where the patient's history and physical examination combined is recorded on one-half a page, where postoperative infections and surgical shock deaths are not unusual, and where, without restriction, any possessor of the mystical "M.D." is permitted to butcher his way into the belly of a trustful but unsophisticated patient? What hope is there of restricting surgery to surgeons so long as a simple appendectomy has the same income tax value as five complicated pneumonias? It is an economic problem in hospital and medical organization. It is also a problem of rating. The specialty boards offer a gleam of hope. They will need the support, however, of an intelligent public or of a compulsory system of licensure, and of these, the latter is the more likely.



There is much good graduate and post-graduate teaching of medicine in the teaching hospitals, both public and private, where medical practice has a scientific approach and some social conscience. The suggestion that the teaching hospitals sponsor and guide the resident staff training in smaller hospitals within their area of influence is excellent but it has geographical limitations. Frankly, I see little hope of making educational silk purses out of commercial sows' ears in the smaller hospitals under the competitive fee for service system which obtains in their organization and management. Furthermore, the utopian dream of a medical economy in which the general practitioner will refer to specialists all but coughs, colds, babies and boils, or vice versa, is incompatible with human nature. Group practice is the closest approach to economical and efficient effort in this direction at the moment.

I disagree with Dr. Buerki when he says that an intern should not be permitted to assist at a mastoidectomy. His training will not be worth the name if he does not at least observe such procedures. True, a general practitioner today seldom has to do a high forceps delivery with a shoe-horn in a snow drift, but he should be prepared for the common, but major emergencies when specialized help is not available. I disagree also with the intimation that only a short and restricted period of training is required for general practice. I believe that adequate training for this most important "specialty" cannot be obtained in less than two years of a rotating or mixed internship and that three years is the desirable period. I believe also that in straight internships, a total of less than three one year services, is inadequate. I suggest that interns should receive at least a small stipend in addition to maintenance.

The medical schools are not free from all blame and Dr. Buerki makes a proper plea for less detailed instruction in the specialties of medical teaching. Many graduating students know the technique of thoracoplasty but "suck wind" on a paronychia. They have never seen a turpentine stupe prepared and are helpless when confronted with the problem of making or giving an enema. No medical curriculum is complete without a few hours of instruction in nursing procedures sometime during the junior or senior year. May I make a plea also for another orphan of the progressive storm, *materia medica*.

My criticisms are of details in design and I make them humbly. I see an improvement even in my comparatively short experience in the field of graduate and postgraduate training. The men who have graduated during the past ten years are doing a better job than many of their predecessors and they reflect better training in medical school and hospital. The general sketch plans which Dr. Buerki presents encourage us to hope for further improvement. He and his colleagues who are planning the new structure deserve the sincere support of all professional educators and of all medical craftsmen.

DR. FRED G. CARTER (Superintendent, St. Luke's Hospital, Cleveland): Dr. Buerki has pointed out the importance of making the internships and residencies real educational experiences. If this means that we are going to emphasize the teaching aspects of these services, it seems to me that it will be necessary for us to make some one responsible for carrying out these assignments or having them carried out. Any program of sound teaching cannot depend entirely for its results on the type of attention which otherwise busy practitioners are able to give it. It appears that provision will have to be made for an educational director in any hospital which attempts to do much teaching. This individual will not necessarily do the teaching himself. He will be the director or coordinator, the spark plug of the program. He will make teaching assignments and see that they are carried out. He will explore new teaching fields and enlist competent help to carry out the teaching in these fields.

All of this will cost money, which someone will have to furnish. Many hospitals will maintain that they are at the end of their financial ropes; that they cannot add another dollar to their permanent overhead expenses without jeopardizing their entire structure. Many medical schools are in the same predicament. As for the medical student, in

many instances he is already carrying about all of the expense he can bear and is calling for subsidy in the shape of allowances from the hospital during the intern and subsequent years. Patients complain about the high costs of being sick in hospitals so that additional expense cannot very well be passed on to them. Evidently, we will have to fit the educational cloth to the financial pattern.

Possibly, the answer to all of these financial objections might be found in the thought that a good educational director, with his nose to the ground for teaching opportunities among all classes of workers throughout the hospital, could step up the efficiency of the entire institution to the point where he and his small staff would be a distinct asset rather than a liability to the hospital. He might even extend his activities to the education of the public in matters of health, thereby building good will for the hospital which would be reflected in its financial reports.

Without realizing what has been going on, we are finding ourselves in the midst of various and sundry educational activities growing up all around us in hospitals. Maybe the time has arrived when we should give proper recognition to these activities through the organization of educational departments through which all such matters could be cleared. The training of interns and residents is one problem, postgraduate training, in the sense that Dr. Buerki uses the term, is another. The education of nurses is a third. Social workers, dietitians, laboratory technicians, medical librarians and others must be taught certain techniques and principles. Our subsidiary workers, the nurse aids, clerks, maids, orderlies, laundry workers and maintenance men become more efficient in their work if they are given proper instruction. We cannot keep our machines in high gear by emphasizing high standards in one instance and totally neglecting good standards of performance in another. I firmly believe that a broad educational field could be carved out of our activities and made the responsibility of an educational director and that such a move would result not only in better service to patients but improvement in our economic picture as well.

Dr. Buerki has stated that an intern should neither be expected nor allowed to assist at a mastoidectomy. I realize that this particular reference is used to illustrate a principle, but it raises a question in my mind as to our objectives in medical teaching. If the intern assists for the purpose of learning surgical technique alone, perhaps he might better occupy his time otherwise. If he is there to learn something about the later stages of a chain of disease processes, he should assist in some capacity. On the stage they say "The play's the thing"—everything else is subordinated to this idea. In medical teaching, we might well say that the disease in all of its manifestations is the thing. What I am trying to say is that students of medicine, regardless of their classification, should be taught life histories of disease, not cross sections. Should the student be denied this opportunity because the patient in whom he is interested happens to come to operation?

In the midst of all of this discussion of educational problems I cannot refrain from making reference to another side of the argument. Somewhere along the line we must wean students away from the apron string type of teaching. Sooner or later they must reach a point where they are self taught; they must learn to do their own thinking. It seems to me that there are grave dangers to be guarded against in formalizing the education of interns and residents. It can be overdone very easily.

DR. WILLARD C. RAPPEYE (Columbia University): I am willing to help break the ice in starting the general discussion of Dr. Buerki's paper because it seems to me we must be very careful in any consideration of this long-term plan of medical education. We should not become dogmatic. There are many problems involving fundamental flexibility in any educational scheme, not only flexibility for the needs of the individual student. We all know the different directions in which students ramify and go later, but we also must have due consideration to the facilities and various opportunities that are provided in the hospitals. We must always keep in mind the general purpose of educational direction in the hospitals of the intern and residency training. It would be a great

mistake if we began trying to standardize any one of these phases of medical education. After all, we are building about the unit of medical education which is the student. In the development of the professional groups it is important that we do not make the mistake of trying to put them all into a mould.

I think also there is a very important matter that perhaps has not been discussed here today although it is implied in several of the comments and that is the importance of not proceeding too rapidly with these developments. After all, growth is a question of getting your roots and foundations in pretty deep if you are going to build permanently and soundly.

We are struck also, those of us who are working with the problems directly, on the lengthening of the training of the student in residencies and other groups. I am quite confident that there is an optimum period for graduate training beyond which great damage may be done to certain individuals. We see that in quite a number of our own group who have become institutionalized, who lose their self-reliance, but who lack the necessary initiative to go out and begin independent practice even though they may be thoroughly competent. We have to be a little bit on our guard that we are not keeping in our graduate schemes those individuals who when they go out into practice have to go out in a wheelchair.

DR. R. H. OPPENHEIMER (Emory University): As this subject was first brought to my attention, my immediate reaction was antagonistic because I am imbued with the same two qualities which impede everyone's work—complacency and a certain degree of lethargy. It is so much easier to let a thing alone because it is so much harder to do something about it. One likes to run along on an even keel and dislikes very much to have that procedure interrupted.

When I get up in the morning, I put on either my dean's hat or my hospital hat, so I can speak to this subject from either angle. From the dean standpoint, I realize that the internship is a big problem. I face it every year. One of the great problems is to help a student to get a suitable internship. I often wonder about it. We have means by which we attempt to do that. I do not think the student evaluation of an internship necessarily is a good one any more than I think his evaluation of a medical curriculum is necessarily sound. It seems to me that some of us who are thinking about this subject can do something to help them. I realize that deans have a great deal to do. The dean's immediate reaction is, "Well, after we graduate the student, why should we labor to do anything about him afterward?"

But as you work on the subject of internships, you realize that you are pretty hopeless in telling a student whether to go to this place or that place, and that includes some of the hospitals spoken of as the good hospitals in the country, unfortunately, even some of the university hospitals. Therefore, I think as far as our job as dean is concerned, we face a problem which I believe we can handle. I think we can take over the internship business ourselves and can help make something out of it as far as our side of the situation is concerned.

I think there is even more lethargy and complacency on the part of the hospital people. I am one of them myself. I know what some of their problems are. I mean hospital people. I do not refer to the hospital superintendents, but to the large group of people who come there as practitioners. Some hard labor has been done in raising internships from the status of an orderly to something of the nature of a practitioner. Unfortunately, in doing this we have taken over many of the responsibilities of the practitioners; particularly is this true in a private hospital where the doctor brings in the patients and allows the housemen to make the diagnosis. It has been suggested that the medical student does not know anything about how to put on a mustard plaster or how to make a turpentine stupe, but many practitioners of medicine who work in hospitals throughout the country do not know anything about giving an intravenous infusion; they order them and allow them to be given by the house staff.

When it comes to the question of teaching the house staff, I know what a problem any hospital superintendent has. The staff, certainly of this large group of hospitals which are not connected with universities (and of some which are) are not willing to put in the time on the thing, and it does take time. It is easier, I think, to go along and not attempt to organize real teaching services.

I am not particularly concerned with the intimate details as to whether the students—Dr. Buerki, unfortunately, mentioned a mastoid and everyone who writes a paper says something that can be jumped on as a motif primary—I am not at all concerned with the mastoid business or any other of the immediate details. I think the problem which we face is, can a change be made? It means that we will have to get up a little earlier and possibly think a little longer and along different lines than we have been doing. From the standpoint of hospital administration, I think it can be done. It may add a little to the cost of hospital work, but I think that issue is not going to have much to do with it, nor do I think it is one that offers a great impediment.

I do believe firmly that if the deans get together on their side and the hospital people get together on theirs and work this problem out, it can be made a real thing.

Some mention has been made of the American Boards and some of the good results that have been shown. We constantly have classes in the university now for men who are planning to take the American Board on Surgery. Read their questions; they are very interesting. We have a class now in progress. We just had one that finished, getting ready for the American Board on Internal Medicine. If our hospital courses are to be adequate, those men should not face the necessity of taking special courses after they finish a residency in order to pass a board which is only asking one question and that is, "What is the physiological basis of practice?" If our hospital internships and residencies give this knowledge it is immaterial whether the method used is in the form of the atmosphere of the place that considers it or in special courses that require it. I believe the job Dr. Buerki has mentioned—and I appreciate personally his bringing it to us—can be done. It just depends largely on whether we want to do the work to put it over.

DR. FREDERIC J. VON RAPP (Hahnemann Medical College): Three years ago at one of these meetings in Atlanta, it was advocated by a member that the intern should have a postgraduate course. You might be interested in hearing about what we have attempted to do at Hahnemann. On our return from the meeting, I called the faculty together and discussed the problem of a postgraduate course.

There are twenty-four interns in our hospital. From these we select six residents each year, not with the idea of meeting requirements of any particular board, but to act as guides to the class that follows them in internship. The faculty gives lectures on the different services every week during the college year. We have, for instance, given them a course in public health and have had the Director of Public Health of the city take care of that; also a course in pediatrics, dietetics, nursing, minor surgery, obstetrics, social service, and we will include one in anatomy.

The first year it was difficult because I do not think that all of the faculty were particularly interested. The second year the course was improved, and this year we hope for a full set-up. There are twelve interns of the twenty-four in a class. Each lecture is given twice, so that they all get the same lecture.

We have come to the conclusion, as perhaps some of you also may have, that the internship should be a two years service. A few years ago I contacted some of our graduates who were practicing medicine. In heart to heart talks they admitted, that a one year internship did not cover what they had expected and they wished they had had two years. Therefore, we are now planning for two year internships in our hospital.

DR. HAROLD S. DIEHL (University of Minnesota): What sort of an individual does Dr. Buerki have in mind for this educational director of the hospital? Should he be an

individual the hospital brings in for this purpose, or should somebody on the hospital staff, who is interested and competent, assume this responsibility?

DR. L. R. CHANDLER (Stanford University): This has been a most stimulating morning. It seems to me there have been expressed already the principal parts both good and bad that will have to be considered for progress in internships and house officerships. One point I think has been overlooked, although it was intimated or implied by one or two of the speakers. That is the quality of the work of the staff that attend the hospital in which the internship is served. I do not care whether the internship is a rotating or a straight service or a mixed service, it is worth practically nothing unless the quality of the work done by the staff is good.

I think this is quite important during the internship, because there are probably four outstanding periods in a medical student's career. They are rather emotional and at times dramatic. When he first enters medical school and enters the anatomy laboratory and finds a place alongside of his first cadaver, he is quite impressed by the tremendous amount of work that is ahead of him. He gets another change when he enters clinical work, usually in his junior and senior year. He may have an entire change in faculty, in attitude and in the type of work that he is to perform.

His next big change is when he is an intern. Up to that time he has been a boy led by the hand, but he puts on for the first time his white suit, he gets his instructions from the hospital superintendent and walks into the ward the first morning and the head nurse stands up and says, "Good morning, doctor." He is supposed to tell her what to do. During that period, consciously or unconsciously, he creates or establishes for himself professional habits and professional manners that will last as long as he lives. Many times students who go into inferior internships are dumbfounded and somewhat ashamed of the things that they see. They are so startled by the lack of scientific medicine. I think Dr. MacLean has made quite a good point of that this morning. They are shocked and considerably upset at the very beginning of their internship.

Dr. Rappleye has pointed out the fourth period of youthful progress, and that is when the young doctor gets his first private patient. It may be a paronychia or it may be a simple breast tumor that he is asked to remove, but for the first time he is out from under the protecting hand and the support that has been carrying the shield at his back. So I would make quite a plea for the strengthening of the staff in the hospital that is approved for internships. I do not know whether it is the medical school's job or the Hospital Association's job, but I do not think we can have anything worth while in an internship until we are sure of the quality of medical service rendered by that staff.

DR. WALLACE YATER (Georgetown University): There are some other problems that haven't been brought out which emphasize the point that we can sometimes carry things too far. In our municipal hospital of 1260 beds at the present, and with 60 interns and residents, we have the problem of keeping away from too much instruction. We began departmental conferences several years ago; some of them were weekly conferences, some were biweekly and some were monthly. The quality of our interns and residents has improved so much in the last few years that now they are demanding much more.

They have formed a council, I think they call it, of interns and residents and they determine what educational program they want and then they make us give it to them. Now the trouble is that so much time is devoted to conferences and seminars that there is not enough time for them to do their work. The pendulum can swing too far.

Another point is that as far as I am concerned, lectures to interns and residents are valueless. We do not really teach by the lecture method; you can not do it. The time is wasted. The only way to teach is by conferences and seminars and clinical pathological conferences, and so forth. Some years ago we thought that because we had several large hospitals in the city, nine to be exact, with many interns and residents, we



could save ourselves a lot of trouble in our educational program for those men by having an association of interns and residents which would meet weekly in the medical society building and to be addressed by the outstanding clinicians of the city, one each night. After about three months, the whole thing collapsed. I think it was for the simple reason that we were using the lecture method. We have no trouble whatever in getting the men to attend seminars and clinics. They enjoy it tremendously and I am certain they get a great deal out of it.

Another problem that perhaps many of you have and that we are greatly concerned about is the differentiation of the duties of the various members of the resident staff. Our medical students, the clinical clerks, take most of the histories and make most of the routine physical examinations. What does the intern do? What does the assistant resident do? What does the resident do? We have several categories of the resident staff. We have the chief resident physician of each department. The department of medicine, which is my own department, has as its resident head a man who has had a great deal of postgraduate training, who was an assistant professor in a medical school before he took the position. Then we have two senior residents who are third year men doing postgraduate work, eight assistant residents who are taking a straight year in medicine, and the interns. Then below these are the clinical clerks. How to divide the work up among those various groups has become a very difficult problem, and I hope we can get some suggestions about that today.

DR. LOUIS B. WILSON (Mayo Foundation): It seems to me that in all training in a scientific field, the fundamental thing is for the individual student to be given opportunity to find the truth for himself and to recognize it when he sees it. I am afraid that in our present spoon-feeding system of undergraduate teaching we sometimes do make "suckers" out of the students. For things that we tell them and that they accept are often things which are of little significance because they have been told instead of found out. That is one of the basic reasons for giving an opportunity to the medical student to see if he has any trend for, and any ability in, finding truth for himself. In the first two years of the undergraduate school that opportunity should be even more emphasized than it is at present. Perhaps if we didn't try to teach the whole of all of the basic sciences to each undergraduate medical student but gave him an opportunity to find out some of the things for himself, it might improve his ability in that regard in the future.

Concerning the internships and residencies: in our experience in the last quarter of a century with men who have already had their internships and first residencies and who have come to us for further continuation of the equivalent of extended residencies, we have found a few factors that have not been mentioned here which seems to us to be significant. One is the checking by the intern or resident on diagnosis and treatment by his chief; in other words, his presence at autopsies and seeing what errors may have been made.

Now under no circumstances do I believe that a hospital residency is worth recognition for graduate training unless at least 50 per cent of all the patients that die in that hospital are autopsied. I don't believe that it is possible for high grade work to be done in the care of patients in hospitals unless the possible errors are checked on at least 50 per cent of the cases that die. And we find that autopsy experience with freedom of discussion of the case has been one of the most significant factors in the graduate training of men in residencies.

I would like also to make one further suggestion concerning the numerical proposition that has been discussed here. Is it not possible that many hospitals in which the patients cared for are of general practice rather than consultation type might properly get all the clinical service they need from general practitioners in the neighborhood rather than from interns? Is it not possible that if educational institutions concentrate more upon those hospitals that now have graduate educational opportunities, the other hospitals may find it worth their while to give general practitioners a better chance on their staff? Is it not possible also that the taking on of twice as many residents as are necessary to

handle the clinical work in the graduate hospital might give those residents an opportunity to do more things which they don't have to do and solve the problem which the last speaker has mentioned? That has been the solution with us in large measure. We find it is well worth while.

I think it is utterly impossible to regiment the graduate training of a man who is fit to take graduate training; if he has enough sense to be a good graduate student, he has too much to be regimented in his training.

DR. A. C. BACHMEYER (University of Chicago): Like Dr. Oppenheimer, I have had experiences with the internship from both the superintendent's office and the dean's office. It seems to me that there is much that this Association can do in this particular connection. As a result of some committee work this year, in which somewhat less than 400 hospitals were addressed, asking whether they would appoint interns or announce their appointments on one particular date (November 15), a very generous response was received. It merely confirmed opinions, that resulted from discussions and past experiences, that the hospitals were ready, willing, anxious to cooperate with medical schools in this problem of internship. We were not only interested in this large response indicating a willingness to follow a suggestion, but also in the comments received which reflected the attitude of hospitals all over the country.

During my participation in the conduct of the fifth year program at the University of Cincinnati, on several occasions hospitals definitely said, after disapproval of the type of internship they were conducting had been expressed, "Tell us what it is you want us to do. We are only too glad to formulate a program which will meet with the approval of the school."

The University of Chicago, on the other hand, abandoned the fifth year requirement because they could not control or could not approve the educational content of internships; they did not have enough control over the situation to justify the extension of academic recognition. I think that it was largely in the latter instance an unwillingness on the part of the faculty of the school to really work at the problem. In a number of other schools that have worked at this problem, that have actually participated in discussions with hospitals as to how internships should be formulated, how they could be organized so as to improve their educational content, the fifth year program is developing in a rather satisfactory manner. But the hospitals of the country are looking to this Association or the medical schools of the country for assistance and guidance.

I believe that it would be well for us to develop basic concepts as to what should be included in the internship, but not a rigidly formulated or moulded program, not an endeavor to put in a lot of formalized educational features. I think that there is grave danger in moving too fast. There is grave danger in prescribing standards, inflexible standards.

As has been indicated, in the figures quoted this morning, there are 734 hospitals approved by the American Medical Association; 7,832 internships are listed, about 6,100 being available each year, and only about 500 graduates, hence hospitals all over the country are pleading for interns.

A suggestion was made, I understand, that the medical schools increase the number of students so more interns would be available. Well, many of these hospitals are not so organized—do not have the facilities, do not have the staffs—that will permit them to conduct really worth while internships. Such hospitals might very well use some of the men that want to go on for another year or more in preparation for general practice, employing them as house officers. Through the school of experience without definite formalized educational procedures they can gain additional training for general practice. Many of those hospitals are asking, "How are we going to get interns?" I believe the answer is going to be, "You are not going to get them, but you can develop your service by the use of general practitioners in the vicinity," as Dr. Wilson has suggested, "by the use of men that want to go on, not in preparation for a specialty but for further

training for general practice." I believe they can get house officers who will help them solve their problem. The point I want to make, however, is that the hospitals are extending their hands half way and that if this Association will help them, we can definitely improve the content and quality of our intern service.

SECRETARY FRED C. ZAPFFE: At the February (1939) meeting of the Executive Council, a committee was appointed, the Committee on Internship, to concern itself with internships. The committee consists of Dr. Bachmeyer, Dr. Buerki and myself. At that meeting, there were present four or five hospital directors who entered into the discussion. We concerned ourselves, first, with the discussion of a uniform date of announcing intern appointments in order to overcome the confusion and distress and uncertainty under which the students labor until they get their internship appointment. The hospitals all over the country are having different dates of appointment, so it was decided to start out with that item.

The committee scanned the list of hospitals approved by the American Medical Association (734) for internships, and selected from the group 363 hospitals in all parts of the country, hospitals which from knowledge or from belief the committee felt were the ones that should be approached first on this question. The response we received from these hospitals was quite promising; 344, or 95 per cent, replied to our communication. Of the entire list, 298 hospitals, 82 per cent, unqualifiedly supported the suggestion of a uniform date on which to announce intern appointments—November 15. Only thirty-three hospitals in the entire group said they could not cooperate for obvious reasons, such as hospitals that are included in the Philadelphia plan and in the Boston plan.

However, one very interesting item that came out of this study was this, the approved internships set up by the American Medical Association were 7832. The number of available interns at the end of the 1938-1939 college session in the United States, including all colleges, approved or not, was 5,089!

Another interesting feature was that these 363 hospitals which we contacted absorbed 5,134 interns, an excess of forty-five over the available material in the medical schools of the United States. It is true that a few interns come in from Canada; the figure is not large. But we must also remember that the available internships are not all of twelve months duration, some are twenty-four months and even longer. So that the supply would obviously be diminished by these figures.

We did not concern ourselves with residencies. We did find that one hospital to which we wrote, a state university hospital, does not employ interns. They employ house officers, men who have already served an internship. That may be a solution. At any rate, whatever plans may be made in the course of the next three, four, five or more years which will look toward bringing some order out of this chaos of the internship, we must always bear in mind what there is available; what you can get. Remember that every senior is a potential intern. Thirteen medical schools require an internship for graduation; the rest do not. That still leaves 5,089 students available for an internship. We also know that all these men do not enter on an internship. Probably about 5 per cent do not take an internship because either they go directly into practice, as they still can in twenty-seven states, or they remain in college to prepare for teaching or to enter on a career of research or something else. So that the number available for internships is cut down still further. In the headquarters of the Association we know what the distress is on the part of hospitals seeking interns. The Intern Placement Bureau which, as you know we operate is beset by requests from hospitals, and not, as you might surmise, always the poorest or the smallest hospitals. Some very good hospitals want to know whether we can direct them to someone who will serve as an intern.

There are so many problems connected with the internship that it requires serious study. This discussion should serve as a very good starting point for formulating a workable plan which will bring order out of chaos.

DR. E. S. RYERSON (University of Toronto): As a representative from Canada, I thought I might participate for a moment in this discussion, particularly with reference to one point made by Dr. Buerki which I was very pleased to hear him make. I, among a number of others, suggested the idea of appointing a director of interns when I put forward this idea at a meeting of the Ontario Hospital Association more than a year ago at which a large number of the representatives present were nurses and superintendents of hospitals rather than medical men. The basis of introducing the idea, as far as the intern was concerned, on that occasion was the fact that the change that has occurred in nursing education and the development that has taken place in that field, has largely arisen as the result of their becoming organized and developed under a director in each of the different hospitals.

Many of the older members of this Association, in addition to myself, can look back to the day when the nurses' training was entirely a practical training with no definite educational program of any kind whatsoever. It is only since they have developed and appointed a superintendent of nurses and developed a fixed educational program to be carried out under her direction that they have got together as a group in their endeavor to raise the standards of nursing education. If we look back on the development of our own system of medical education, I think you can see very easily that the same process of development has taken place.

The medical school from which I graduated was staffed entirely by general practitioners and two specialists, one in eye and one in ear, nose and throat. Even the science departments of anatomy and physiology were taught by general practitioners. It was gradually realized that they had to have men who could devote their entire time to these subjects and out of that developed the first full-time men in these sciences.

More recently we have had the development of full-time men in the clinical departments and full-time clinical groups. That has all been based on the realization that in order to direct an educational program, whether it is in a special department or in a group, as a whole, you have to have someone who will direct and look after the job. For that reason I feel that one of the important developments in order to carry out an intern education program is the appointment of a director of interns in the hospitals.

There is another aspect of the intern period in the hospital which has not been referred to in this report but which I referred to at that time as one of the functions which this director of interns might perform. Interns, as has been pointed out, have immediately come from an undergraduate course and have just become doctors. They have little realization of the fact that they have to take care of themselves as far as their own health is concerned. We all have had the experience, the very sad experience, of seeing interns in hospitals break down with tuberculosis and other diseases. I think it is a severe criticism of ourselves as medical men that right in our own hospitals, under our own care, our own junior men who have just fulfilled their course in education have to give up two or three or more years, and possibly do not ever recover, as the result of their developing tuberculosis in service. They are on active service in the field of medicine, just as a man is in the war, and we must take care of the health of those men.

Again, the nursing profession in the care of the nurses can give us a lesson in that way. Prior to admission they receive a very thorough physical examination. They are all tuberculin tested; many of them are x-rayed, and so on. During their course, the condition of their health is to a measure supervised, not even as yet to an adequate degree.

I think, again, a function of this director of interns should be that of supervising the health of the intern. They are all so intensely enthusiastic about their work; they will work day and night. They will not go out of doors sometimes for a week or ten days. In consequence, they get in such a lowered state of vitality that if they come in contact with any infection, they break down and become a patient rather than an intern. So I think the idea of appointing a director of intern education should have consideration, and he should have as one of his functions the supervision of the interns as human beings during their service in the hospital.

DR. STANHOPE BAYNE-JONES (Yale University): I have been thinking about that suggestion and matching it up with some previous experience we have had at New Haven and elsewhere. I think in essence it is a sound proposal; but, again, I start from the basis of a sort of inherent reluctance to put all these things on a standardized and regulated basis.

At New Haven we have occasionally a man who is interested in fundamental studies to prepare himself for some special line of clinical work. Such a man has had full opportunity to spend some time in one of the so-called preclinical departments. He may do that in some irregular way, as through a fellowship, or he might be excused from the ordinary routine duties of his service for a while to study in one or two departments. I think it is in essence an excellent scheme.

I do not feel that these men should be loaded with teaching duties of service to the general department in which they may work. I do think that opportunities should be provided for them to study further in the fundamental basic science of whatever division or whatever specialty they may enter. I think it would take a great deal of study, as Dr. Rappleye has said, to work out such a scheme because one of the essential practical points is to obtain free time for these men on busy services so that they can have leisure for study and become scholarly, interested people in their particular field.

I would like to say one or two other things about some other phases of this discussion. I am not quite clear about what I may try to express but I would like to give an impression. It is only emphasizing some things that have been said. I think it was Dr. Wilson who pointed out that really the primary responsibility of hospitals and schools is to provide an opportunity by which a properly qualified man can study and do things that would perfect himself in his particular field, and make him a scholarly physician, fully aware not only of the advances in the technic in his field but of the whole social-economic implications of the work in which he is engaged. If you provide such an opportunity, that is doing a tremendous major service. You cannot drill these men into using that opportunity. They must be the kind of people who someone said can find out the truth and take advantage of the opportunity that is offered.

The other thing bears on the quality of the work of the senior staff of our institutions. It should be taken for granted that they are able, but we know that it is not always possible to get men who are students of medicine as well as busy practitioners to carry the load. That is a fundamental problem that Dr. Chandler brought out and it must be taken into consideration in the practical management of any scheme of this sort.

The final thing I would like to say would be to register some objection to the idea of appointing an educational director of intern training. I do not see how it is possible. The man would be a perfectly amazing genius if he were able to cover all the special knowledge that he would be required to cover. He would have to have also amazing tact and ability to deal with the heads of departments who are eminent men in their fields, and no man attached to a hospital administrative staff is ever going to be able to lay out a program for the training of interns and go around and check up their assignments, the assignments that have been given to very able men in these departments, to see that the educational tickets are filled out. I do not think he will have the knowledge and the ability to understand the full educational content, and I think those things can well be left to the heads of the departments in which these men work.

PRESIDENT RAPPLEYE: I think the point Dr. Bayne-Jones has just made, which reemphasized what Dr. Wilson said, is very important. In the recent additions to our medical science units, erected to house specifically the graduate students in graduate medical education, we have been careful to select those who will be able to benefit by the medical science training of our graduate program. It has been necessary to limit the numbers who may come into the laboratories to work, even though we restrict all appointments to residencies in affiliated hospitals. As you know, a number of so-called postgraduate medical schools are being established, to provide basic science training by rote and by spoon-feeding. Several of you have mentioned the importance of not moving too rapidly



with this whole program because it is going to take a long time to develop adequate facilities and train personnel to present this material properly, if we are not going to avoid the loss of scholarly attainment in medicine. We shall have to be very careful that we do not go into mass production of some kind. One is struck by that in these figures today. The total number of residencies in the country is almost disquieting when we learn that there are practically 50 per cent as many residencies as there are internships. I am not at all sure that we are not going to have to review that whole situation in regard to graduate medicine with a good deal more critical eye than we have in the past. It is fine to have enthusiasm and interest, but we also have to be pretty careful we do not get off onto a purely bookkeeping standard or something of its kind that Dr. Bayne-Jones has just emphasized so forcibly.

DR. R. C. BUERKI: In a moment of enthusiasm I expanded a three page paper of general principles into a twelve page paper including specific suggestions, hoping that I would still leave the impression that the last thing I am interested in is standardization or regimentation or dogmatic presentation of this subject. Quite the contrary. I would like to emphasize the principle of standards, yes; standardization, never.

What pleases me most about this discussion is that I have heard no opposition to the fundamental thesis that the internship and the residency should be educational experiences and that too frequently today they do not measure up to that standard.

Although I feel that mixed internships are best suited to the educational needs of the doctor, I know of certain straight internships in surgery that are doing a better teaching job than some of the services in medicine or mixed services, where, I think, it is much easier to provide a well rounded experience. These services in surgery are teaching basic principles of the whole field of medicine, not technics.

I would like to emphasize again the point Dr. Rappleye has so ably expressed. This program cannot be put into effect over night. It is a much slower process. It will take a long time. It disturbs me to see the number of people interested in this problem who feel that they must do something at once. It cannot be done that rapidly.

Dr. Carter discussed my reference to a mastoidectomy. Apparently I did not make myself quite clear. I could have chosen any other major operative procedure. I wished to emphasize that fact that in assisting at such operations, the intern too frequently feels that he is acquiring the necessary skills. He does not realize that he has not developed the necessary judgment.

Concerning the one year internship, I believe that there are not enough two year services and many of the two year services are in hospitals preparing men for residencies, although Dr. Curran tells me that in New York many of the two year services are in hospitals that want to develop general practitioners. A considerable number of the hospitals with two year internships are contemplating making that second year the first year of the residency. The real danger in some two year services is that men who have completed them will think they have had enough training to practice a specialty. That danger we must avoid.

I was glad to hear the point made that the house officership may be a very fine way to give a man increased training for general practice.

I heartily agree with Dr. Bayne-Jones that the educational director cannot tell the chief of any service what to do, though he can assist in the organization and coordination of the work.

Dr. Diehl asks what type of men should be appointed as educational director. I do not think there is any one type. He should be a man who understands the educational need, is vitally interested in doing an educational job in the internship and residency, and is capable of enlisting support for his ideas. He may be a young man who has not quite established himself in practice but has the necessary background. Or he may be an older man on the staff who is letting up on his practice, but who has kept alive his interest

in the newer things and has an appreciation of educational problems. Either of these men may be placed on a full time or a part time basis.

I would also like to emphasize the fact that a lecture system is not the proper method for graduate teaching. Conferences, seminars and bedside teaching are the best tools. I was surprised that no one objected to the multiplicity of conferences and seminars I suggested. They need not be as clearly defined as they appeared to be in my discussion. I was listing those conferences and seminars that are now in existence in some hospitals. I made the suggestion that a specific hour a day be set aside for that type of educational opportunity. This would dramatize its value.

## Why?

A little maid once asked me why  
The robin's breast is red, and why  
When she would catch him he will fly  
Away up in the tree so high.

Why it is red and grass is green.  
No happy answer have seen  
Beyond the scientific fact  
The waves of light have this effect.

This is just a way-side station  
On the line of explanation  
And farther yet we'll have to go  
Before the why, we truly know.

"It's nature's law," may satisfy  
The mind that never questions why  
But seeking minds with faith profound  
Will search until the cause is found.

A king asked why the people rage  
When he was well advanced in age  
So evening age and morning youth  
Both live and seek to know the truth

This universal wish to know  
Relationships in which we grow  
Originates we know not where  
Yet drives to deep unceasing prayer.

A prayer that's not for self alone.  
Its answer none could keep or own  
For knowledge flows to others bless  
Like song that birds on air express.

Yet men of science say that why  
Is not a question that they try  
To answer, and all science ends  
With simple facts one comprehends.

So red and yellow, blue and green,  
And all the colors in between  
Are but vibrations of the light,  
But why it vibrates?—dark as night.

Still in the night we seek the light  
As driven by some unknown might  
To see and know those things aright  
Which to our minds are Infinite.

H. A.

## Boy Trouble\*

CHARLES S. LAMSON

University of Colorado School of Medicine  
Denver, Colorado

A play in four scenes written with the aid of, acted and produced by the Junior Class of the University of Colorado School of Medicine; being one of the activities of the Department of Psychiatry. Author:—Production Committee: William Eller; Lawrence Fairchild; Thomas Hanigan.

Cast of characters, in order of their appearance:

DR. JAMES PAYNE, psychiatrist.

DONALD BALLANTINE, judge of the juvenile court.

BEN HICKS, a delinquent boy.

ELLEN, a maid in the Hicks' home.

ANDREW HICKS, his father.

MARY HICKS, his mother.

AMY HICKS, his younger sister.

MIKE } Two companions.

FUZZY }

A lady in red.

A street cleaner.

A policeman.

A drunk.

The action takes place:

PROLOGUE—An unseen person reads parts of "There was a Child Went Forth" by Walt Whitman.

SCENE I The lounge room of a men's club.  
Time—the present.

SCENE II The dining room of the Hicks home.  
Six months previous.

SCENE III A street corner.  
Later the same evening.

SCENE IV Dr. Payne's office—psychiatric pavilion.  
Two months later than Scene III.

### PROLOGUE

"There was a child went forth everyday,

And the first object he looked upon and received with wonder, pity, love or dread,  
that object he became,

And that object became part of him for the day,

or a certain part of the day, or for many years, or stretching cycle of years.

\* \* \*

"The field-sprouts, of Fourth-month and Fifth-month became part of him;

Winter-grain sprouts, and those of the light-yellow corn, and the esculent roots of the garden,

And the apple trees cover'd with blossoms and the fruit afterward, and wood-berries,  
and the commonest weeds by the road;

\*Presented by the Junior Class of the University of Colorado School of Medicine at Denison Auditorium, April 14, 1939.

EXPLANATORY NOTE: In the spring of 1937, Dr. Franklin G. Ebaugh, head of the Department of Psychiatry, University of Colorado School of Medicine, conceived the idea of presenting some phase of the art and science of psychiatry in play form. That year the junior medical students, under his guidance, wrote, acted and produced a sketch entitled, "A Demonstration of the Management of a Sleep Disorder." The seed of a tradition was sown. The class of 1938 followed with "From Bottle to Bar," a study of the analysis and treatment of an alcoholic. "Boy Trouble," presented by the class of 1939 demonstrates the management of a problem in juvenile delinquency.

The purpose of these amateur efforts has been primarily educational though, admittedly, concessions have been made in the direction of audience appeal. The Department of Psychiatry feels that the collateral reading incident to the writing of these plays has broadened the psychiatric knowledge of the members of the various authorship committees, that the production committee men have gained in initiative and resourcefulness, and that the actors and actresses have taken a step toward accomplishment of platform poise. The Department hopes that the audiences have acquired additional understanding of psychiatric problems and procedures.

And the old drunkard staggering home from the outhouse of the tavern, whence he had lately risen;

And the school-mistress that pass'd on her way to school,  
And the friendly boys that pass'd—and the quarrelsome boys,  
And the tidy fresh cheek'd girls—and the barefooted negro boy and girl,  
And all the changes of city and country, wherever he went.

. . .

"His own parents

He that had fathered him, and she that conceived him in her womb, and birth'd him,  
They gave this child more of themselves than that,  
They gave him afterward everyday—they and of them became part of him.

. . .

"The mother at home, quietly placing the dishes on the supper table.

The mother with mild words—clean her cap and gown, a wholesome odor falling off her person and clothes as she walks by;

The father, strong, self-sufficient, manly, mean, angered, unjust,

The blow, the quick loud word, the tight bargain, the crafty lure,

The family usages, the language, the company, the furniture—the yearning and swelling heart.

Affection that will not be gainsayed—the sense of what is real—the thought if, after all, it should prove unreal,

The doubts of day-time and the doubts of night-time—the curious whether and how, Whether that which appears so, is so, or is it all flashes and specks?

. . .

"Men and women crowding fast in the streets—if they are not flashes and specks, what are they?

The streets themselves, and the facades of houses, and goods in the windows,

. . .

"These become part of that child who went forth everyday, and who now goes, and will always go forth everyday."

From: "There was a Child Went Forth."

Walt Whitman.

. . .

# SCENE I

Corner of club lounge. Dr. Payne and Judge Ballantine are comfortably seated, Doctor at end of sofa URC, Judge in chair LC, toying with their after-dinner liqueurs. Judge has a brandy—Doctor a creme de menthe.

JUDGE: (Holding his brandy forward) It's a warm, friendly color, isn't it?

DOCTOR: Is that a judgment of the eye or the stomach?

JUDGE: Eye. Yours is just as warm and friendly to the stomach—to the eye, cold. Don't you know your colors?

DOCTOR: What do you mean—warm colors, cold colors? Why the qualifications?

JUDGE: I mean that some colors, the warm ones, red, orange, and yellow are active in emotional stimulation. Others—the blues, the greens, the violets are passive. They don't stir us. They're cold, if you like.

DOCTOR: You read that somewhere. You learned it by heart. You probably spout it at dinner parties to make an impression.

JUDGE: Please doctor! After all. (Takes cigar from pocket. Looks around room for matches. Sees ash-tray on table L.)

DOCTOR: To you, Judge Ballantine, a person apart, those generalizations don't mean a thing, and you know it.

JUDGE: You're a skeptic. (Rises, goes to table L. takes match from ash-tray.)

DOCTOR: I'm an individual.

JUDGE: Aw, Ferdinand! (Strikes match, stands by table, talking with lighted match in one hand, cigar in other.) Specific emotional reactions to specific colors are well known, common to all. One can even spot personality types, especially in women, through an appreciation of normal reaction to color as manifested by the shades of clothing they choose. There's an affinity there. A natural correlation. The cucumbers will be in green—the hot patooties in red. (Match finally burns finger—he drops it) Ouch! Damn it!

DOCTOR: Your erudition floors me.

JUDGE: It's elementary, my dear Watson. Take brown, for instance. Under brown you will find an independent, capable, self-sufficient woman.

DOCTOR: Doesn't show the dirt.

JUDGE: Exactly. (Strikes second match) Beneath a green dress you will find a cool, clear, pleasing, restful, calm personality. A good listener. The sort to take your troubles to. (Lights cigar.)

DOCTOR: I get it Judge, your secretary.

JUDGE: (coughs and sputters on cigar smoke) My secretary wears trousers—and they're not green. Don't interrupt. Now take blue. Who wears it? The dependent little thing. The clinging vine. You're apt to find her a bit depressing at times—just as the color is. She hasn't a thing to offer. She just absorbs. It's a good color for courting though—men are suckers for it in the mating season. (Walks back to chair with ash-tray which he puts on end table.)

DOCTOR: Yeah. My wife wears it constantly. Don't you get into trouble sometimes at dinner parties?

JUDGE: (Sits in chair) Sorry old man. No offense.

DOCTOR: Ah! and the Lady in Red will be intriguing, exciting, exhilarating, vibrant or even better, a little dangerous?

JUDGE: You said it better than I could.

DOCTOR: That's the spittin' image of our laundress. You'd better warn my wife to discharge her.

JUDGE: (Smiles.) Well, if it isn't what she is, it's what she'd like to be.

DOCTOR: (Takes cigarette from case and lights it.) Now, Don, you may be trying to pull my leg, or you may be just rehearsing your party patter. In any event it's fairly entertaining, and you may be partly right. I mean you can find people who will react to your colors as you want them to. But when you tell me that I am to feel, for example, that blue is depressing you're simply chasing rainbows. Take your friendly wine color there. Only the other night my young son said that he hated red. Why? It reminded him of Monday and back to school.

JUDGE: Why would it remind him of Monday?

DOCTOR: He didn't know. Your guess is as good as mine. Some trivial reason no doubt—but a cause somewhere. (Puffs on cigarette). It's dangerous to generalize. You can't be dogmatic about any emotional reactions. Human beings are as different as their finger tips. An individual's reaction to a specific color may be definitely and uniquely conditioned by an experience connected with that color—an experience that may, in some cases, have passed into the outer spheres of consciousness, but the unique reaction will continue. (Puffs on cigarette). Uh—by way of further illustration—you doubtless remember the case of Ben Hicks?

JUDGE: Oh. Yes, of course. He appeared in my court only six months or so ago. You apparently did a good job with him. Reports to the court indicate that he is getting along fine.

DOCTOR: He is. The boy has good stuff in him.

JUDGE: (Smiles) You know me—all boys have good stuff.

DOCTOR: That's why you are a successful juvenile judge.

JUDGE: Thanks.

DOCTOR: You're welcome.

JUDGE: It seemed to me, from the story I heard in court, that the boy was largely a victim of circumstance. He fell in with the wrong crowd.

DOCTOR: Let's say he chose the wrong crowd.

JUDGE: Why?

DOCTOR: That's always our problem. Why? Undesirable companions are usually a result, not a cause of delinquent tendencies. The old adage about "birds of a feather" contains a lot of truth. They flock together because they already have something in common. The black feathers are often acquired prior to the association.

JUDGE: Where did young Hicks get his?

DOCTOR: In his home.

JUDGE: Stern father? Over-indulgent mother? Sibling resentment? I know your lingo.

DOCTOR: (Smiles) You've forgotten the three D's—death, divorce and desertion.

JUDGE: Haven't come to that chapter.



DOCTOR: Hint all you like. I don't propose to give you the answer until the proper time. It wouldn't be good story technique. I will say that the chief causal factor in the boy's maladjustment was surprisingly specific. Something you could put your finger on and say, "This was the cause of this effect." And that is unusual. Ordinarily we are entangled in a complexity of gradually evolved contributing factors. I had a number of seeming causes to work with until—

JUDGE: Now don't tell me that this boy's mother was attacked by a flock of hungry crows three days before the child was born, and that's where he got his black feathers.

DOCTOR: (Smiles) Don't antagonize me. I confess that this boy's case was a little bizarre. Had some reverse English on it. I worked with him over a period of two months—investigated his background— even contemplated a seance with his grandmother. I won't bore you with endless details. Will simply give you the high lights, some of which you already know.

JUDGE: Remember. You've got to work some color in here somewhere. You started out to prove something.

DOCTOR: Give me time and I'll show you a reaction to one of your cool, restful, unexciting colors that will blow your hat off. An individualistic reaction that was conditioned by an experience. A bit of behavior that revealed that experience and tossed the key to the boy's situation almost into my lap.

JUDGE: Do you solve many mental difficulties by waving colored cloths before your patients?

DOCTOR: Oh, we are not toreadors, you know.

JUDGE: No? How do you make your living?

CURTAIN

\* \* \*

# SCENE II

Dining room of the Hicks home. Six months earlier. Table is partially set for evening meal. As curtain rises Ben is standing before mirror on wall. He takes Kodak picture of father from his pocket, scrutinizes it, then examines himself in mirror. Ellen enters room to put soup bowls on table and catches him. Ben shows embarrassment.

ELLEN: What in the world are you doing? (Goes to Ben and snatches picture as he tries to conceal it.) Why, it's a picture of your father. If you ain't the queer one, always sneaking around admiring yourself. If it's to be like your father you want—you're as different as day and night—and a pity, too. (Starts to put picture in apron pocket.)

BEN: (Angrily) That's none of your business! Gimme that picture! (Ellen hands picture to him) And if you start blabbing about me again, I'll—I'll—do something to you.

ELLEN: Oh ho! So it's threats, eh. Well, my fine young man, your father will take care of that, if I've a mind to tell him—and mind you I will, if you get too sassy.

BEN: Now listen, Ellen, be a good sport. I didn't mean to lose my temper. I'm—I'm in a play. I was rehearsing a scene. It's going to be a secret. Please.

ELLEN: You're a little goofy if you ask me, with all your pussy-footing. But it's nothin' to me, if you stay harmless. If you'll call 'em to dinner for me I'll forget it. (Ellen exits R.)

BEN: Soup's on! (sits in chair at table UR)

(Mother and sister enter L. Mother goes to chair at end of table R. Sister stands with arms folded at UL corner of table.)

AMY: Old picklepuess wasn't exaggerating, was he? Is that all we are going to have?

FATHER: (Enters L., sees Ben seated) Ben! (Ben rises, assists mother to chair—all sit.)

MOTHER: You know very well Monday is vegetable soup night. It's very nourishing. Even the Parkers, with all their money, have it as their (exaggerated French accent) *juice de résistance*.

AMY: Zowie! You hit that one right on the nose. Have you been naturalized?

(Father chuckles.)

BEN: (Sullenly) I don't know why you let her get away with that smart alecky stuff.

FATHER: (Sternly) Never mind. You just look after your own behavior.

AMY: (To Ben) Yeah. Don't think I didn't see you this aft.

BEN: (Savagely) Shut up!

MOTHER: Come now, children, no tittle-tattle. The soup will be getting cold.

FATHER: Where was he?

AMY: (Noticing Ben's threatening look) Oh, just down the street.

FATHER: That's not definite. I demand to know where he was. What were you doing Ben?

BEN: (Sullenly) Nothing special.

FATHER: Hmph! Nothing special, indeed. It's special to me. Come now, Amy, speak up.

AMY: (Hesitatingly) Well—I just saw him sneaking into Paddy's pool hall is all.

FATHER: (Sternly) Ben, I've told you time and again to stay out of those dives, and this time I mean it. Do you hear me?

BEN: (No answer.)

FATHER: You're going to the dogs associating with those roughnecks you pick up, the Lord knows where. I'll have you know this is a respectable family, and by thunder, it'll stay respectable if I have to send you to the reform school to keep it so. You are going to go to work after school hours. I'll get one of my station operators to take you on as a helper—though you're no asset to anybody. We'll put a stop to these evil associations.

MOTHER: Now Andrew, you know that the smell of gasoline makes the poor boy sick. Goodness knows it makes me sick enough, too. I don't know why you insist on being in that smelly business. Why Mrs. Wilson has a cousin who knows a man in the perfume business and he makes—

FATHER: That's enough. (Bows his head. All follow) Father we thank Thee for the blessings of this day. (Ben kicks Amy on the leg) We beg Thy forgiveness for our sins of omission and commission. Bless this food to our use that we may become strong in Thy service. We ask this in Christ's name. Amen.

AMY: (Quickly and loudly) Ouch!

MOTHER: Why Amy! What's come over you?

AMY: He kicked me!

BEN: It's a lie!

AMY: He did so.

FATHER: (Angrily) Did you kick your sister?

BEN: (No answer.)

AMY: Somebody did.

FATHER: (Starting to rise) See here, you young whelp—I'll—

MOTHER: Now Andrew, remember your blood pressure. Maybe he didn't mean to. Did you, Ben?

(Father sits back)

BEN: Aw, I just touched her accidentally on the shin. But it was quite a while ago, I don't know what she's yapping about now.

AMY: Well, I couldn't scream while papa was asking the blessing. Could I, papa?

FATHER: (Regards her disdainfully) (Then to Ben, resignedly) Ben, I don't know what's got into you. You used to be a good boy, but for nearly four years now you've been going downhill. As God is my judge, I've done everything in my power to lead your steps into the proper path. I've lectured you and I've whipped you. You're getting too big for that now.

AMY: (Smartly) You said it, papa.

FATHER: Quiet, you. (Turns back to Ben) And now on top of everything you start kicking women. I swear I don't know what we are going to do with you.

ELLEN: (Offstage) Send him to the bughouse.

FATHER: Ellen, you keep your nose out of this. Sometimes I think you have been here too long.

ELLEN: Yes, sir, but I'm telling you he's queer—why only—

FATHER: That's enough!

MOTHER: Come now. He didn't mean to hurt her. He said he didn't. Poor Ben, everybody picks on him, maybe he just doesn't feel well—do you, Ben?

BEN: Not very.

MOTHER: There, you see, I knew he didn't. He's been so quiet and sad all evening. We're getting him upset. We are all getting upset. We won't have any blood in our stomachs to digest our food.

AMY: (Pretending to be shocked) Mama! Such stark reality. You should serve your facts with a little parsley.

MOTHER: Pshaw. Come, eat your soup. None of you are eating properly. It's really a very substantial meal. Has nearly everything in it.

AMY: You're telling us. It wouldn't surprise me to see Eleanor Roosevelt bob up. (Pokes soup with spoon.)

(Father and mother smile. Ben sniffs contemptuously.)

AMY: There you are. The intelligent people are properly amused—the dullwitted morons sniff.

MOTHER: Amy, don't call Ben names like that even in fun.

AMY: Why?

MOTHER: Because morons are terrible men who drag women into bushes.

AMY: Mama, you should read something besides newspapers.

FATHER: Stop such talk in this house. You should know better than to mention such things, Mary.

MOTHER: Yes, dear. I'm sorry. But Ben shouldn't be compared to a—a—one of those people just because he is a little cross. The poor boy is sick. Anybody can see that.

FATHER: He isn't too sick to play pool every day.

MOTHER: Sh! Goodness, haven't we had enough quarrelling for one evening? I read where it was bad to keep telling children they were bad because—because—oh, dear, I'm afraid it was even bad for me to say that, because it said they shouldn't be talked about—and now I'm doing it—and I know it's terrible because if you use psychology you're supposed to do things backward, sort of. And here I am blurring things out. Oh, dear.

AMY: Stop, mama. You are blurring me right into a home for wayward girls.

FATHER: (Disgustedly) Stuff and nonsense. How do you think I handle the situation when one of my employes disobeys me? I tell him right out in plain English what I expect and if he doesn't come through I fire him.

AMY: But, papa, you can't fire us. People would talk you know.

MOTHER: There, Andrew, you see? It isn't so simple as that smelly gasoline business.

FATHER: (Angrily) I'll have obedience—and I'll get it without any beating about the bush!

MOTHER: (Helplessly) Oh, dear. I try so hard to keep everybody happy. And I did want to have a nice meal. I'm sure we'll all have indigestion. (Brightens) But you'll like the dessert, dear. It's applesauce. I like to mix it with the soup.—

AMY: You and who else?

MOTHER: Why, your father, dear. I mean I like to have it on soup night because he is so fond of it. I always plan to serve him something he likes with something he doesn't like. It's what's called a balanced meal. You'll learn about such things when you get married.

AMY: Oh, I'll get along all right, thank you.

FATHER: Well, let's have it. I've had enough of this sl——(pushes soup away.)

MOTHER: Andrew, don't you dare say slop.

AMY: He was going to say slum—old army term.

MOTHER: Disgusting.

FATHER: Oh, Ellen!

MOTHER: Sh! How can I train her when you act that way. Where is that buzzer? (Feels with foot)

ELLEN: (Offstage) It's farther to the left, ma'am. I'm comin'.

(Ben squirms uneasily, turns pale, opens mouth as if to say something.)

(Ellen enters R. with serving of applesauce which she takes to mother.)

ELLEN: Ma'am, I believe this applesauce is spoiled. It's kinda funny looking.

MOTHER: (Looks at it, smells it, takes tiny taste) Hmm. Oh, dear. I'm afraid it is. It has a sort of queer look and doesn't taste quite right either. I guess you better throw it out. (Exit Ellen) That's too bad.

(Ben's sullen apprehensive mood, which he has maintained throughout, lifts and he smiles.)

FATHER: It's worse than that. It's the straw that breaks the camel's back.

MOTHER: (Brightly) Did you ever ride on a camel, Andrew?

FATHER: (Incredulously) Did I ever ride on a camel?

MOTHER: Yes, of course—you know—like on the cigarettes. Mrs. Wilson did when she took her trip to the Holy Land.

AMY: How did her humps fit with his'n?

BEN: Haw! Haw! Haw! That's a hot one, Amy. It ain't bad. It ain't bad at all. Haw! Kinda quick I calls it.  
(All regard him with surprise)

MOTHER: (Reprovingly) It's disrespectful.

AMY: Well, I swanny, old sourpuss finally got one. You oughta warn us before you have a spell like that.

BEN: (Subsiding) Aw, nuts. Can't a fellow open his head around here?

FATHER: What does all this crazy talk about camels have to do with spoiled applesauce?

MOTHER: Why, Andrew, you know very well you brought up the subject.

AMY: (Slyly) Papa, I think she's practicing her psychology. She's trying to divert your mind.

FATHER: It won't work. It's a waste of money to carelessly let food spoil.

MOTHER: (Petulantly) Now, father, you just try putting up applesauce sometime.

BEN: (Somewhat excited—vigorously) That's right, mother! That exactly right. Gosh! You can't hit every batch right on the nose. Anybody's liable to make a mistake. Anybody! (Becomes more emotional) You gotta make mistakes. Everybody does! You wouldn't be human. What's a little dab of applesauce? Who cares? (He pauses—all regard him with astonishment) It ain't right to blame someone for something that's a sort of an accident. Just an accident. It's not fair!

MOTHER: Now, son, there's no reason to get upset about such a little thing. I'm sure your father doesn't really care if a jar or two of preserves are spoiled. Your nerves are a little jumpy.

(Ben looks up at her appreciatively.)

FATHER: (Rising) And it's no wonder—the way he prowls around half the night. You just keep your shirt on, young fellow. I'll do all the managing in this household. If I choose to criticize your mother it's no occasion for you to act like you'd lost your senses.

BEN: (Contritely) Yes, sir.

FATHER: And you're not leaving this house tonight. Understand that. You'll stay here and practice a little self-control. (Exits L.)

BEN: Yes, sir.

MOTHER: (Rises, goes behind Ben, leans over and kisses him on cheek) Ben will stay in and listen to Trust Busters on the radio, won't you Ben?

AMY: Gang Busters—mama—and it's over.

MOTHER: (Goes behind Amy, stands at UL corner of table with hands on hips) (Reprovingly) Amy, I wish you wouldn't try so hard to spoil things when I'm being tactful. Anyway, people do bust trusts or something don't they?

FATHER: (Sticks head in door L) (Disgustedly) Oh, come along, Mary, and find me a clean shirt. I have to go to a meeting. (As they exit) You see to it that he obeys.

MOTHER: (Resignedly) Yes, dear.

AMY: (Calling offstage after them) Hey, mama, you couldn't dig me up a little sponge cake as an antidote for this soup, could you? (No answer)

ELLEN: (Faintly from offstage R) Got some nice dry dog biscuits out here.

BEN: (Laughs loudly)

(Amy rises)

AMY: What's the matter with you tonight? You have more moods than an old maid piccolo player.

BEN: Nothin's the matter.

AMY: (Walks behind Ben UR) You certainly popped off like a bunch of firecrackers awhile ago.

BEN: Aw, I was burned up about you squawking on me going into Paddy's.

AMY: Musta had a long fuse.

BEN: (Angrily) Aw, skip it—will you? (Rises) I gotta get out of here. This family drives me nuts.

AMY: Oh. You dassen't. He told you . . .

BEN: Can't help it, I tell you! I got to get out. You don't know how I feel. I'm all quivery inside, sort of.

AMY: (Chuckling) Like a couple of fellows shaking hands in your stomach.

BEN: It ain't funny. I'll bust if I have to stay here. I—I need some excitement. Plenty!  
(Pushes Amy roughly aside—exits R.)

AMY: Why you dirty—

CURTAIN

\* \* \*

SCENE III

A business section street scene. Later the same evening. Two boys are sitting on the curb under a street light.

MIKE: Wonder where Ben is.

FUZZY: His old man probably nailed him.

MIKE: Tough, ain't he.

FUZZY: Naw, not to my notion. You ain't seen nuttin', till you've got an old man who comes home tight and beats hell out of everybody. Mine's gonna wham me once too often one of these days. You're lucky, Mike, you ain't got one.

MIKE: Mebbe. Smoke?

FUZZY: Thanks. (Both light.)

(A girl in bright red dress walks hurriedly across stage L to R. Boys eye her. Fuzzy whistles.)

MIKE: Mebbe I am lucky.

FUZZY: (Looking after girl) Mebbe you're what?

MIKE: Lucky. But Maw eats her heart out wonderin' where he is. We ain't heard from him in five years. He wasn't a bad guy either. I don't care a damn myself, but it's hard on Maw. She says she'd die without me. (laughs.) Can you imagine?

FUZZY: Can't imagine tying myself to nobody. It's bad medicine. I'm a lone wolf.  
(Pause) T'hell with troubles. What'll we do?

MIKE: Here's Ben, he'll have ideas.

(Ben enters R.)

BEN: Hi, gang!

MIKE and FUZZY: Hi, chief.

BEN: What you doin'?

MIKE: Waitin' around for you. What kept you?

BEN: The old gent gave me an argument. I gave him a first class telling right back and beat it.

(Fuzzy winks at Mike)

FUZZY: Hell, let's hunt up some gals. I don't . . .

BEN: Nothin' doin'. I'm running this party. I crave excitement and I hate women.

MIKE: How about some pool?

BEN: Too slow. Look. (Pulls pint of whiskey from pocket. Hands it to Mike.)

MIKE: Hmmm. 3 years old. That's good stuff, boy. Where'd you get it?

BEN: That's my business. G'wan, have a snort.

MIKE: You first, Fuzzy. (Offers it.)

FUZZY: No thanks.

BEN: Huh? Don't be a sap. Have a drink. Do you good.

FUZZY: Don't want any.

BEN: Give it to him Mike, he'll take one.

FUZZY: (Heatedly) I tell you I don't want none. I ain't in the humor.

MIKE: All right, all right. Yuh needn't get sore. Do you want to make him take one, chief?

BEN: Naw, skip it—More for us.

MIKE: Right. Well (raises bottle, coughs, makes a wry face) (Softly) Jesus Christ!

FUZZY: (Looks up and down street) Don't hoist it so high. Keep it hid under your coat. No use wavin' a red flag at the bulls.

BEN: (Laughs) Listen to old, cautious Claude. Fuzz, you got about as much guts as a—  
as a amoeba.

MIKE: Whatever that is.

BEN: (Superiorly) Oh, it's a little single-celled animal.



MIKE: Like a nit?

BEN: Smaller.

MIKE: (Admiringly) Gee, you're smart, chief. You got education.

BEN: Here, let's have it. (Takes bottle—raises it high with air of bravado) You better run for home, Fuzzy, cause when I drink I drink high, wide and handsome. I'm gonna get boiled. (Takes big drink) Wow!

FUZZY: (Resentfully) I ain't scared, but there's no use bein' damn fools.

MIKE: (Takes dice from his pocket and rattles them enticingly) Boys, me and my little friends here got some good ideas for some excitement. Anybody got any dough? (Gets down on knees.)

BEN: Sure. That's right down my alley. Shoot, big boy. I'll fade yuh.

FUZZY: Naw you don't. We'll pee wee for the dice.

BEN: (Tauntingly) Well blow me down. Old cautious Claude isn't going to shoot craps right here on the street, is he?

FUZZY: (Angrily) You lay offa me.

BEN: (Grabs Fuzzy by collar) Listen you, who's boss around here anyhow? I'll say what I please and you'll like it. Get me?

FUZZY: (Mumbles something in protest.)

MIKE: Come on, skip it. Let's get going. (Ben and Fuzzy get down on knees) High dice wins. (They roll) Fuzzy's shot. What yuh shootin'?

FUZZY: (Glances up and down street) There's a dime.

BEN: I got it.

MIKE: Gimme half.

BEN: Nothin' doin'. Get your own suckers.

FUZZY: (Rattling dice) Come on dice, be good to me once.

BEN: He's out on six. Dime more you can't make it.

FUZZY: Nope. Hit 'em dice. (Rolls a few times) There's your six.

BEN: Let 'er lay?

FUZZY: Shoots a dime.

BEN: Sissy. You're faded. Eleven! Damn. Shoot the twenty.

FUZZY: Lay your dough down.

BEN: Quarter more he can't hit.

MIKE: That's a bet. Eight's his point.

FUZZY: Eighter from Decatur. Reel it dice.

BEN: Quarter you can't come.

MIKE: I'll take that. Four's the come.

FUZZY: (Continues rolling) I'm huntin' for eight. Good, sweet, kind dice send 'em home rumbling. Humph! There's your eight. Comin' out for a quarter.

BEN: Shoot. The side bet is on four.

MIKE: Hmm! Ain't that jes dandy. Come out on four.

BEN: What goes on around here?

FUZZY: Little Joeddy. My favorite point. They're all easy, boys, if you know how. Hmmh! Seven bit me.

MIKE: Your dice chief.

FUZZY: Jiggers! (Boys pick up dice and stop game as street cleaner wheels cart on and stops.)

ST. CLEANER: What you boys up to?

BEN: Scram white-wing.

ST. CLEANER: You better be scrammin' yourself sonny—curfew's about to ring.

BEN: You ain't wearin' the right kinda uniform to give orders.

ST. CLEANER: Mebbe not. But I got orders to keep the streets clean. (Moves off. Ben thumbs nose.)

BEN: Back on your knees suckers. I'm cleaning this street myself. I need help. (Takes drink and passes it to Mike) (Arrogantly) I shoot a frog skin—all or any part.

FUZZY: Godamighty, Ben, keep it down. This is getting too fast.

BEN: You got some of my dough, don't pinch it.

FUZZY: (Reluctantly) I'll take half.

MIKE: I'll take the other half.

BEN: (Shaking the dice vigorously) Hit 'em a big lick, dice. Hmmh! (Rolls) Wow said the grouse! As pretty a little natural as I ever saw. I'm getting hot. I lets her ride. Two bucks open.

(A drunk staggers across stage L to R, pausing to watch boys for a minute.)

FUZZY: I'm taking half a buck.

MIKE: I'll take a froggie. You can't do that to me.

BEN: I drags a half. You're smart Fuzzy. (Rattles)

MIKE: Rise up and smite him, craps.

BEN: No craps on these dice. Wow said the grouse! (Rolls)

MIKE: (Gleefully) Snake eyes!

FUZZY: Wee, said the weasel.

BEN: Damn these dice. (Takes another drink) Well, there's two bucks more.

MIKE: You got a private mint?

BEN: Yah. The old man gets careless. Come on, get your dough down, you gotta fade it. You're both in me.

FUZZY: We don't want to break you, Ben. Go easy.

BEN: (Savagely) I don't give a damn if I am broke. Do I? I can get more. Can't I? Easy. Plenty easy! You guys just lay your jack on the line, I'll look after number one.

(Fuzzy and Mike regard each other apprehensively. Ben is becoming slightly drunk. They put down their money silently.)

BEN: (Rattling the dice) (Venomously) If I come out on craps again I'll throw these dice so far you'll never find them. (Rolls) Good Gawd! Box cars! (Picks up dice and throws them savagely against the wall.) Hell, I'm broke. But I ain't through. Not by a long shot. This little game is to be continued. Do you hear me? You guys meet me in ten minutes at Paddy's. I'm still shootin'. I haven't lost the dice. I'll be there with plenty more jack. (He starts off to R. Staggers slightly. The other two are becoming concerned about his condition.)

MIKE: Don't do anything screwy, chief. (Ben stops) We don't have to keep on shootin' craps. Let's all go down to Paddy's now and play some Kelly. I'll pay for it.

BEN: (Turns on his heel and faces them) (Angrily) Don't be giving me any advice. I'm sick of it. I'm telling you to meet me in ten minutes. And that's final. We're shooting craps. (Exits R.)

(The other two resume seats on curb.)

MIKE: What's he gonna do?

FUZZY: I wouldn't know. Got himself all steamed up about sumpin'. Liquor I guess. And he's a lousy loser.

MIKE: Something else is eatin' on him. He was bright-eyed and bushy-tailed when he got here. He's headin' right for the gas station. (Looks offstage R.)

FUZZY: It's one of his old man's. (Looks offstage R.)

MIKE: Maybe he's going to try to borrow some dough from the attendant.

FUZZY: Mebbe. He's goin' right in all right. (Jumps to feet.) (Excitedly) Oh, Jesus! Do you see what I see?

MIKE: (Gets to feet, stands behind Fuzzy) He's got the attendant reaching for the sky. The damn fool.

FUZZY: Let's get out of here. (Starts to leave toward L.)

MIKE: (Pushing Fuzzy back toward R.) Stick around. We're pure. Has he gotta gun?

FUZZY: Don't think so, never seen him with one.

MIKE: Got his hand in his coat pocket like he had one. How in hell can he expect to get away with a thing like that. They'll know him.

FUZZY: I think he's got his handkerchief pulled up over his face. (Pause) Oh, Migawd! Now I am leaving! There's a cruiser car pulling in for some gas. (Runs off L—pushing Mike aside.)

MIKE: I've seen enuf. I've never even heard of the guy. (Runs off L. after Fuzzy) (Ben runs back on stage followed by policeman who captures him.)

POLICEMAN: So! Tough guy, eh. Where's that gun? (Pats Ben's pockets and pulls pipe out of side coat pocket.) Hm. You'll need a better imitation than that to shoot your way out of jail with. It's a break for you though. Come along. (Starts dragging him off by the arm.) We're taking a little trip to headquarters—and no funny

business. Sa-ay! Don't I know you? You're Andrew Hicks' kid. It's one of your old man's stations you're sticking up!

BEN: (Sullenly) Yeah? So what?

POLICEMAN: What kind of gag is this?

BEN: (Hopefully) That's right officer. It's just a joke. Sure. Thought it'd be fun to throw a little scare into him.

POLICEMAN: Hmmm! (Scratches head) Mebbe so—mebbe not. That cash you got out of the till ain't funny. That's still second degree robbery. Hand it over. (Ben does so.) Anyhow, we'll just have a little chat with the captain about this, come on, now. (Both exit R.)

(The Lady in Red and the drunk walk arm in arm across the empty stage R. to L.)

CURTAIN

. . .

SCENE IV

Dr. Payne's office. Two months later. As scene opens doctor is sitting at desk. On desk is a green enameled metal desk lamp (with green-light shade) nearly in line of vision between doctor and father, also telephone, etc.

DOCTOR: (At telephone) Yes—send them right in. (Mother and Father enter R.)

MOTHER: (Brightly) Well, here we are again, doctor, and Ben tells me that you have been so kind to him in your talks. That you haven't really lectured him at all. And as I tell father—

(Mother sits in chair UC, Father in chair DRC)

FATHER: Doctor—

MOTHER: Please don't interrupt, Andrew. The doctor wants us to talk. Don't you doctor?

DOCTOR: (Patiently) Yes, of course.

MOTHER: Oh, dear. What was I saying? Well, I forget. But anyway isn't it interesting how people are driven around by forces when they may not know anything about it at all? I'm sure we're all learning a great deal. I've read about psychology you know, and I think I'm rather quick at it. Why only last night I told Ben that he positively could *not* have a second helping of dessert, because (smiles knowingly) I got the impression the other day, though you didn't actually say so, that maybe I was too indulgent.

DOCTOR: Perhaps I did say too protective or something of the sort.

MOTHER: Mercy. Then I'm wrong again, because there I was trying to protect his stomach when he should be the one to protect it. But I'll keep trying.

DOCTOR: I'm sure you will.

FATHER: (Impatiently) Mary, I don't believe the doctor is very interested in how much dessert Ben eats. We mustn't waste his valuable time. I don't mind admitting, doctor, that this whole situation is very difficult for me. Very difficult. I could stand, in fact I did, all of his sullenness, his lying, his stealing of money from my pockets—but this last thing, this being called before the juvenile court and all. It's a terrible disgrace.

DOCTOR: You haven't done anything disgraceful, have you?

FATHER: Of course not. But he's my own flesh and blood and it's natural—

DOCTOR: Of course it's natural—and regrettable. But which is more important to you, your pride or the future of your son?

FATHER: My son—I hope.

DOCTOR: And don't you think, as a matter of fact, that the two are rather irrevocably tied? I don't believe I would dwell too much on the so-called disgrace of a passing incident in the life of a boy who is trying to find himself by experimental trial and error. (Pause) If one of your children had to go to a hospital to have a troublesome appendix removed you wouldn't, by any stretch of imagination, consider that a disgrace, would you?

FATHER: Naturally, no.

DOCTOR: I hope the time will come when antisocial behavior will generally and dispassionately be regarded as a symptom of mental disorder as specific, in its way, as a diseased appendix. Something not smugly to condemn—something to heal and correct on the same terms as a bodily disorder.

MOTHER: But are you sure he is well—physically? He seems so—

DOCTOR: The findings so indicate. We peered into every corner.

FATHER: It's beyond me how a boy from a good home can go out and deliberately commit highway robbery. Suppose he has been a little upset mentally about something. Don't we all have to put up with things like that?

DOCTOR: We do indeed. But you see, every act on the part of a human being serves a purpose for that particular human. The purpose may not be conscious, but the act is an effort of his personality to secure an emotional satisfaction which he wants. The satisfaction may be of destructive nature. It may be in terms of revenge, of release from an unbearable tension or something of the sort. In any event it will be compensatory.

MOTHER: (Brightly) Do you understand, Andrew?

FATHER: (Gruffly) No.

DOCTOR: Let's see if we can present an example. (Pause) Suppose you walk to your pet dog and give him a kick. The dog will be surprised, perhaps his feelings a bit hurt, but he will forgive you readily on the basis of your usual kindly attitude toward him. But suppose you continue to kick him at every opportunity. And, (smiles) you may still be very fond of him, but kick him because you are having financial difficulties. But the dog doesn't know that, so he begins to seek a compensation, as we call it. He may get release from the tension by running away from the situation or he may seek satisfying revenge by growling at you, or even biting you.

FATHER: (Slightly angry) Do you mean to imply that I have been kicking my son around? Have been mean to him?

DOCTOR: Why should you be the one to ask that? (Pause) I mean your wife might just as well have taken exception to what you seem to believe is an implication.

MOTHER: You see, Andrew, maybe you do have a guilty conscience.

FATHER: (Emphatically) Not at all.

DOCTOR: I'm afraid I chose an unfortunate illustration. The word kicking has a disagreeable connotation. And after all we're dealing with human beings. But I do think, to get back to Ben, that his experience with the police and the juvenile court was a good thing for him and for you in that it has brought an intolerable situation to a head. Parents should be grateful for the juvenile court and its intelligent activities. Society of course must be protected from individual indulgences, and until about thirty years ago the state made little distinction between children and adults who come to the courts. All measures were repressive. But we have come to realize that the instincts which drive human beings to indulgences "ripen" earlier in youth than restraining reason develops. You, as adults, say "we give up certain individual indulgences in return for the benefits we derive from a regulated social organization." Your son, Ben, can't see those benefits so clearly and consequently has acted contrary to the wishes of society in an impulsive attempt to satisfy an emotional need. The juvenile court realizes this and strives to treat the offender rather than the offense. The offense is but a symptom. None of us are particularly interested in what Ben did, but why he did it and what he is to become.

FATHER: I know exactly why he did it.

DOCTOR: Why?

FATHER: Simply because of the bad influence of those vile companions he runs with.

DOCTOR: He may have been influenced, that's true. But we still will want to know why he selected them as his companions. It may be necessary to separate Ben from them by moving to another neighborhood or by trying to substitute another group, or, on the other hand, he may drop them voluntarily as uncongenial as his own quality improves. I think we may expect the latter, I believe, from my talks with Ben, that we must seek elsewhere for the why of his behavior.

MOTHER: Am I to blame? I've tried so hard to be a good mother.

DOCTOR: Blame is not a good way to express it. If you feel that you are partly responsible there is no occasion for self-reproach. Parents' attitudes toward their children are colored by their own emotional needs, some of which we must learn to suppress if we find they interfere with the satisfactory growth of the child. What is Ben's attitude toward you? His feeling?

MOTHER: It has changed in the last few years, I felt something has been wrong with the boy.

DOCTOR: How?

MOTHER: Well, he used to come to me with all his problems and difficulties.

DOCTOR: And now?

MOTHER: He's so aloof, so self-sufficient. And (Pause) you want me to be frank don't you, even though it hurts?

DOCTOR: Please.

MOTHER: He may be even a little contemptuous.

DOCTOR: Do you go to your mother with all your troubles?

MOTHER: Don't you remember, doctor, she's dead. I told you.

DOCTOR: Sorry.

MOTHER: But I did go to her. She was a great comfort.

DOCTOR: And when she died?

MOTHER: Why—Why, I guess I just turned to Andrew.

DOCTOR: And if he were to die?

MOTHER: Oh, my goodness I—I'd just give up.

FATHER: Hmmpf!

DOCTOR: Would you be happier if you were less dependent?

MOTHER: Oh, no. I don't think so. I—I like it.

DOCTOR: Would you be a better person?

MOTHER: How can I tell that?

DOCTOR: (Smiles) I guess you can't. (Takes cigarette from case, offers to Mother and father, lights cigarette.)

FATHER: Excuse me for butting in, doctor, but Mary, what the doctor is trying to tell you without hurting your feelings is that you are coddling the boy too much. She needs plain talk, doctor.

MOTHER: (Heatedly) And heaven knows we get enough of it around our house. I don't know how Ben can call his soul his own the way you order him around all the time. Someone has to take his side!

FATHER: (Sternly) Children need masters.

DOCTOR: But children gradually become adults. It's hard, sometimes, for parents to realize it. Some don't want to. (Pause) I wonder if it isn't a little difficult at times for Ben—this being torn between two attitudes? Mightn't he be a little bewildered?

FATHER: He knows who is boss.

DOCTOR: (Rises, goes to downstage corner of desk, leans on it) Mr. Hicks, I suppose your father was a kindly man?

FATHER: And so he was. But he knew how to get obedience from his children, mind you.

DOCTOR: How?

FATHER: His word was law.

DOCTOR: Did you always obey?

FATHER: Yes, sir.

DOCTOR: Without resentment?

FATHER: I had to.

DOCTOR: Never kicked over the traces?

FATHER: Never.

DOCTOR: (Smiles) Perhaps you should have.

FATHER: Why?

DOCTOR: To free yourself of resentment, tension.

FATHER: I turned out to be a reasonably good citizen without knowing anything about your tensions.

DOCTOR: Certainly. And so you want your son to be. But he seems to react differently to excessive discipline. Some youths are thick-skinned and don't mind it. Some like it. Some resent it but do nothing about it—at the time. In which case the feeling tone is apt to crop out later (Long pause). Others, like your son, perhaps, manifest their rebellion by overt acts. They are inclined to take a back hand slap at the authority that interferes too much with their natural desire for emancipation. A son can't very well tell a parent to go jump in the lake, but he is likely to seek a substitute satisfaction. He may lie or steal or drink or gamble or be mean to someone else. He seeks a bit of revenge.

MOTHER: (Sweetly) Dear, I think what the doctor is trying to tell you without hurting your feelings, is that you shouldn't be strict with Ben just to get even with *your* father. He needs plain talk, doctor.

FATHER: (Acidly) If you don't mind I'll do my own interpreting. (To doctor) But suppose I did agree to believe something like that and tried to turn soft all of a sudden? I'd feel silly. And besides, I couldn't change my spots overnight.



MOTHER: (Brightly) Leopards can.

FATHER: Leopards can't.

MOTHER: (Lamely) Well, then it's carnelians—or something.

DOCTOR: (Smiles) (Goes behind desk, stands with hands on desk, leaning toward father)  
I wouldn't advise it. Ben would smell a rat, so to speak. He'd be on guard. I think if we strive to develop an understanding sympathy the attitudes will take care of themselves. Let's remember that Ben can't take us along with him into manhood. He must learn and he wants to learn to make his own decisions. He has many strange and often fearful problems, with which to cope. Let's cooperate with him. Let's advise him as we would an intimate friend—an equal. Let's give him his head a bit. (sits.)

FATHER: I'm afraid it won't work—not with Ben.

DOCTOR: You haven't had very good results with your old method. Don't you think a change is indicated?

FATHER: Doctor, I know you will think this sounds childish, but I don't think I started this row between Ben and me in spite of your implication that it's a sort of carry over from my own boyhood. I leave it to my wife if I wasn't tolerant enough until he—well—started picking on me three or four years ago.

MOTHER: Why, Andrew, you talk like a five year old. But maybe he's right. You have changed.

DOCTOR: People do bite back and we're apt to get a vicious circle. Whatever the cause, it is evident, that his stream of antagonism is directed largely toward you. We'll learn that cause eventually. Do you mind now if I have another talk with Ben? (Father and Mother rise.)

FATHER: We'll send him in. (Exit father and mother R.)  
(Enter Ben R.)

DOCTOR: Hello, Ben.

BEN: Hello, Doc.

DOCTOR: Have a seat. (Ben starts to sit in chair URC in corner.)

DOCTOR: Do you mind taking the other? I like to look at a fellow when I'm talking—don't you?

BEN: Well—maybe. (Sits down in chair father occupied turning somewhat to side.)  
What's he been saying about me?

DOCTOR: To tell you the truth we talked quite a little about your grandfather Hicks. Your father was telling us how strict he was with him. Do you remember him at all?

BEN: Not very well. Died when I was a kid. (Long pause) I'll bet he lied plenty about me.

DOCTOR: Your grandfather?

BEN: Naw.

DOCTOR: You don't like your father very well.

BEN: (Head downcast—no answer.)

DOCTOR: Do you talk to boys at school without looking at them, Ben?

BEN: Naw.

DOCTOR: Your father is really very fond of you, you know.

BEN: He don't act like it.

DOCTOR: Sometimes parents in their zeal to rear a child properly, as they think, may lean a little too far in one direction. But your father means to do the right thing. Don't you think it is the intent that matters?

BEN: (Eyes averted—no answer.)

DOCTOR: Ben, did you ever try to carry on a conversation with someone who was in another room? (Pause) It isn't satisfactory at all—we depend so much on the eyes for help.

BEN: (Looks up angrily) I'll look at you. I'm not afraid to look at you—if you'll get that damned (violently sweeps the desk lamp to the floor with left arm) thing out of the way!

DOCTOR: (Suppressing his surprise, picks up lamp.) I don't think it is hurt.

BEN: (Tries to regain his composure.) I—I'm sorry, doctor, bu—but I've been staring at the thing for about two months—and it sorta gets on my nerves, I guess.

DOCTOR: You know Ben, I'm a little like that myself. If I bump my shin on a piece of furniture I'm apt to haul off and kick it. Silly, isn't it? (There is a long pause)

as doctor waits for explanation. Ben, with head down, squirms nervously. Finally he looks up.)

BEN: I—a—it's the color. I can't stand it! I can't stand it any longer! I've got to tell somebody! You'll have me arrested. I don't care if you do! I tried to—I tried to make him sick. God, it's awful! (Puts head in hands and sobs a little hysterically.)

DOCTOR: (Doctor leans forward at desk) Ben, I'm afraid I don't understand.

BEN: (Without raising head) You know about it—everybody knows about it! I can tell by the way they act. (Raises head) But I didn't mean to do it—it just came over me—sudden—kinda accidental. I was foolin' round the garage and saw it there in a sack—for potato bugs—so I—so I took some and put it in his food. Oh doctor! You got to help me. You don't know what I have been goin' through!

DOCTOR: Of course I'll help you. It was Paris green?

BEN: (Nods) I put it in his applesauce.

DOCTOR: That's serious, Ben. You might have killed somebody.

BEN: Nobody eats it much but him. And anyway how could it kill a man? It would only make him sick.

DOCTOR: It might kill a man, too.

BEN: Oh! That's awful. But mother threw it out. It didn't look right.

DOCTOR: You're lucky.

BEN: I would have stopped him!

DOCTOR: I expect you would. When did this happen?

BEN: The night I was pinched.

DOCTOR: (Incredulously) The same night?

BEN: I was excited. After—after dinner I couldn't stay there. I was glad—cause he—and I was sorta mad, too. I met Mike and Fuzzy. I got a little drunk, you know. Hardly knew what I was doing. I—I guess I'm a little crazy. I must be crazy!

DOCTOR: (Resumes his seat) You failed to poison your father so you robbed him.

BEN: (Excitedly) I swear I didn't think about that! It was just there—handy. I was glad, I tell you, that I didn't. I was excited—and glad—and sorta drunk and mad. Oh, I don't know. (Hopelessly) I can't explain.

DOCTOR: Does your father really deserve all this?

(Ben stares at floor for long time, then looks up.)

BEN: (Quietly and with effort toward composure.) He is not my father.

DOCTOR: (Calmly) No?

BEN: (Hurriedly, with increasing emotion) I heard it. I still hear it—just like it was yesterday. Two women were waiting for mother. I walked through the room. They spoke to me. I went on into the dining room—the door was open. I couldn't help listening. One of them said, "That boy doesn't look a bit like his father!" The other one said, "And why should he? He looks exactly like that man Mary was engaged to. Are you the last person in town to notice that?" And then they laughed!

DOCTOR: You accepted that bit of idle gossip as proof?

BEN: They acted like everybody knew it.

DOCTOR: You never told anyone about hearing the conversation?

BEN: How could I?

DOCTOR: Hmmm! Would you accept your mother's word now? She would know, of course.

BEN: (Despairingly) I couldn't talk about such things, Doc. Don't make me. Supposing it was true? I could tell by the look in her eyes. It's—it's too awful to talk about.

DOCTOR: Do you prefer to continue worrying?

BEN: I'd rather do that than—than find out it was so.

DOCTOR: I feel sure it isn't, Ben. I'll make it as easy for you as I can. I'll talk to your mother and father first and we'll get this thing all cleared up. What would you like to do about the poison business?

BEN: Don't say that! He'd never forgive me if he knew it.

DOCTOR: Would you forgive yourself if he didn't?

BEN: I don't know. It was a terrible thing to do, wasn't it?

DOCTOR: It was. Is there any way to correct a mistake like that?

BEN: If—if he really is my father do you think he would have me arrested if I told him?

DOCTOR: Not when he knows why you did it.

BEN: (Hopefully) I told a kid once I had intended to knock his can off because I thought he'd lied about me. I think he liked me better after that.

DOCTOR: He probably did. Confession and apology are difficult for most of us, Ben, but the injured person knows that from his own experience and is therefore more appreciative of the effort. I believe that I would have considerable respect and admiration for a person who came to me and said he had intended an injury, but had been laboring under a false impression and was sorry. I believe we could be good friends.

BEN: (Hesitatingly) I may do it—sometime, if I get up my nerve.

DOCTOR: Take your time. I'm leaving that entirely to you. It won't be hard once you get started. Now you send your father and mother in, (both rise) and I'll get this shameful gossip straightened out. You wait please—I know you have the courage to see this thing through.

BEN: (moving R.) I'll be awful embarrassed.

DOCTOR: (Reassuringly) There's an old saying, Ben, "the truth shall make you free." Let's give it a trial.

(Exit Ben R.—Enter father and mother R.)

DOCTOR: Please sit down.

MOTHER: What happened to Ben? He seemed all upset.

DOCTOR: He just told me something that has been bothering him tremendously for several years. Something that was difficult for him to mention.

MOTHER: About his sex experiences?

DOCTOR: No. (Pause) Not his—We threshed that question out some time ago. Er, ah, it is necessary that you both know, so I'll speak quite frankly. He overheard two women talking about him. From the conversation he got the impression that (to father) you were not his real father.

FATHER: (Astounded) Not his father? What—(turns to mother.)

MOTHER: Why that's ridiculous. Utterly ridiculous. Who were they? What did they say?

FATHER: Well, I'll be . . .! We'll scotch that business! That's if . . . if (Turns to mother) What's going on around here? Maybe you and I had better go home.

MOTHER: Now, Andrew; don't have one of your spells. Who were they, doctor?

DOCTOR: He didn't say and I didn't ask. They were waiting for you in your living room apparently and remarked that Ben didn't look at all like his father but greatly resembled some man to whom you once were engaged.

FATHER: That skunk Ellis. I'll—

MOTHER: (Sharply) Andrew! You stop that! Doctor, this is all very embarrassing. But Andrew knows, (regards him intently) and I know that it's all bosh.

DOCTOR: You tell Ben that.

MOTHER: I—I'll try. But I'll devote the rest of my life to finding out who those women were.

FATHER: (Pointedly) I'll help you with that.

DOCTOR: I wouldn't disturb Ben with that angle. Simply assure him that it's absolutely false. I believe we'll see a changed boy around here.

FATHER: Mary, you're sure about this?

MOTHER: You should be ashamed! I'm surprised you'd even . . .

FATHER: Very well. I'm sorry. But this came sort of sudden. I may be needing a room here myself, doctor.

DOCTOR: (Smiles) I don't think so. And I feel inclined to apologize for thinking that you were almost wholly responsible for Ben's bad behavior. I suppose you just learned to scratch back—a natural reaction.

FATHER: I'm willing to sheathe my claws.

DOCTOR: Fine, shall we call him in?

FATHER: Of course.

(Doctor picks up telephone.)

DOCTOR: Will you send Ben Hicks in? He just left? See if you can catch him. Hurry.

MOTHER: Good heavens! Maybe he'll do something to himself. We better . . .

DOCTOR: Let's wait a second. I don't much blame him for trying to make a getaway. It's a tough spot for a boy—the embarrassment and the deep conflict he's been struggling with. If he comes make it easy as possible. Just present the truth to him

calmly and sincerely. He'll be counting on your word, Mrs. Hicks. I'm sure you can handle it.

MOTHER: (Nervously) Mercy. What a thing to have to say to a son. I—I faint, you know.

FATHER: (Sternly) You get hold of yourself and do your job.

MOTHER: Y—Yes, dear. Sh!

(Ben enters R, breathless and embarrassed. Mother advances to meet him. R. He closely scrutinizes her face.)

MOTHER: (Calmly) Ben, dear, it's not true.

BEN: I—I—oh, mother! I'm so glad. (They embrace) So very glad. I—a—I—guess I've acted like a fool. I'm sorry—for everything. (Father rises and goes to Ben. R.) (Mother moves back to chair she occupied, stands wiping eyes.)

FATHER: Forget it, Ben. You see I didn't know what we were fighting about. I had no idea a thing like this was preying on your mind. It's all very silly, isn't it?

BEN: (Smiles) Goofy, I calls it.

FATHER: (Extending his hand) Okay now—son? (They shake hands.)

BEN: Okay—father. And—a—can't—can't we go home now? I'm—I'm sorta shaky.

DOCTOR: Why not? It's the happy ending.

FATHER: Goodbye, doctor. Thanks. Mail me your bill and don't get chicken-hearted.

DOCTOR: (Smiles) You're flirting with disaster. Goodbye, Ben. Good luck.

BEN: Goodbye, doctor.

MOTHER: You two go ahead. I'll be along in a minute.

BEN: (As they exit R.) Father,—I think—that is—ah—when we get home maybe I want to talk with you about something.

FATHER: You may shoot the works, son. Sky's the limit.

(Mother looks to see if they are out of hearing, turns to doctor.)

MOTHER: A—tell me—a—do these—I mean—do these blood tests that parents sometimes have made—do they—a—prove anything?

(Doctor studies her closely for a moment.)

DOCTOR: Not a thing, Mrs. Hicks. Usually not a thing.

MOTHER: (Relieved) Thank you. Thank you, doctor—for everything.

CURTAIN

## Medicina Bona

A medicus of yore  
Wrote this upon his door:  
"I have a healing pill  
That eases every ill,  
And a precious ointment  
That cures disappointment.  
I've also a plaster  
To use for disaster."  
Many sick for help appealed,  
And to them it was revealed:  
"Patience is the healing pill  
That will ease away each ill.  
Good humor is an ointment,  
That soothes deep disappointment,  
Care is better than plaster  
For it prevents disaster."

Anon. et H. A.

## The Number and Nomenclature of Professorships In Medical Schools of the United States

FREDERICK C. WAITE

Professor of Histology and Embryology  
Western Reserve University School of Medicine  
Cleveland, Ohio

The first American medical teaching staff, appointed in 1765 at the College of Philadelphia, consisted of two professors, but was increased to four professors within three years. About twenty years later medical instruction was inaugurated at Dartmouth College with a single professor and for more than ten years Dr. Nathan Smith constituted the entire medical faculty and taught all the subjects of the medical curriculum. During two years he had the aid of an assistant of subordinate grade. This one man medical faculty was reminiscent of early conditions in England. During more than 150 years from the beginning of medical instruction at Cambridge University, the medical faculty consisted of only one member who, under the designation of professor of physic, taught all medical subjects.

During the first half of the nineteenth century, in most American medical schools the faculty consisted entirely of professors, except for the usual addition of a demonstrator of anatomy. During that era, seven professors were considered to constitute a "complete" faculty. Many schools had a smaller number. Table 1 shows the great increase in the number of professors now deemed necessary to conduct medical instruction.

TABLE 1—Number of Professors in Medical Schools of the United States

One school has.....	9
11 schools have.....	10 to 19
20 schools have.....	20 to 29
18 schools have.....	30 to 39
11 schools have.....	40 to 49
One school has.....	50 to 59
3 schools have.....	60 to 69
One school has.....	118

Not only has this increase in the number of professors been marked, but since the Civil War there has been a rapid addition of teachers with subordinate titles. Adjunct, associate and assistant professors, lecturers, instructors, demonstrators and assistants, collectively, now outnumber the professors in every American medical school. In the sixty-six medical schools in the United States giving the four-year course there is a total of 2,148 professors, an average of 32.5 to a school. Their distribution is shown in table 1.

The total number of members of the teaching staffs of these schools is 16,700 while the total number of students is about 22,000. Each of twenty-two schools has more members on its teaching staff than it has students. These figures do not agree with those given in descriptions of schools in the educational number of the



Journal of the American Medical Association, since in those descriptions, for fifty-six schools, emeritus, adjunct, associate, and assistant professors are included under "professors." In this tabulation titles carrying such modifications are omitted. One-half of these schools have from twenty-five to thirty-nine professors. The large number in the sixteen schools that have more than forty, in several instances results from prodigality in bestowing the title of clinical professor, often in a subject of limited scope and with duplication or multiplication of exactly the same title in the same faculty.

This prodigality is especially marked in one locality. The five medical schools in New York City and Brooklyn have a total of 293 professors, an average of nearly sixty to a school, while the average for all schools outside that area is thirty. Of these 293 professors, 179, or 61 per cent, are clinical professors. One school has seventy-six clinical professors. The corresponding composite percentage of clinical professors for all schools outside this particular locality is 29 per cent. In 1937-1938, these five schools had a total of 2,166 persons on their teaching staffs to care for a total of 1,813 students.

Not only has there been great increase in the average number of individuals on the teaching staff of a medical school, but there has been change and expansion of the terminology designating the professorships. Some designations that were usual in medical faculties of early days have disappeared entirely. Examples are professorships of botany and of mineralogy, once considered essential to give knowledge of the sources of the *materia medica*. In two cases the early name of a subject has changed. Midwifery has been entirely replaced by obstetrics, and physic has been replaced by the more limited word "medicine," except at Harvard Medical School where the professorship of physic retains its original title. This was the first endowed American professorship in a medical subject, and was established by a gift in 1770.

Until the middle of the nineteenth century, the two major subjects consisted of two phases expressed as principles and practice of surgery and theory and practice of medicine. This double phrasing has disappeared for surgery, except in one school, but is retained in three schools for medicine.

When the specialities began to appear in teaching titles each was designated as "diseases of ——" In the majority of schools such phrasing has been replaced by a noun derived from Greek or Latin and with the suffix -ology, e.g. diseases of women has become gynecology and diseases of the skin is now dermatology. The word diseases occurs in sixteen professorial titles at present.

Several modifying adjectives, such as "pathological," "physiological," and "preventive," have brought additions to the nomenclature. The one most used is "clinical" replacing the phrase "practice of." Some of the schools place clinical before the word professor, while others place it after that word. Professor of clinical medicine and clinical professor of medicine are considered as synonyms in this tabulation. Since, in the list that follows, the words "professor of" are omitted, this variation in the position of the word clinical is not shown in the tabulation.

Some professorial titles are multinomial containing two, three or four nouns. Nouns with the modifying adjective reduced to one or two syllables, such as biochemistry and microanatomy, as well as compound nouns like gastroenterology and otorhinolaryngology have been invented to secure brevity. In nine schools are found what may be termed parenthetical professors. The title is given as professor of a major subject, such as medicine or surgery, and then limited to a small field by a word in parentheses following the major subject. Similar use of this form of anticlimax in political official designations would give John Doe, Governor of the United States (Rhode Island.)

Certain limitations have been observed in this inquiry. It is restricted to active full professors without modifying adjective of emeritus, adjunct, associate or assistant. To include all subordinate titles would multiply the number of entries in the tabulation by eight and would give little added significance, since subordinate titles in each school usually follow the nomenclature of the professorships in that school. The nomenclature of titles in Canadian schools appears to be influenced by the usage in British medical schools, which in some respects diverges from usage in the United States, therefore the Canadian medical schools are not included. Statistical comparison would be confused by including the schools that give only the first two years of the curriculum. In these schools the clinical subjects are omitted and some of the teachers of medical students have no title beyond that held in the faculty of arts and science, therefore, only those schools which give the full four year curriculum enter into the tabulation. This group is further limited to those schools which are included in the list recognized by the Council on Medical Education and Hospitals of the American Medical Association.

The information is compiled from catalogues current in May, 1939. Since schools differ in the month of issue of the annual catalogue, the lists were issued partly in 1938 and partly in 1939.

A title is entered according to the first noun that appears in that title. Some binomial titles contain subjects that are only remotely related, but no title is entered a second time under another group. The titles are grouped in approximately the order of sequence of subjects in the curriculum. A miscellaneous group at the end includes some titles that are general in nature or somewhat bizarre for a medical faculty. In each title the words "professor of" are omitted.

#### PROFESSORIAL TITLES IN SIXTY-SIX MEDICAL SCHOOLS

87 Anatomy	1 Micro and Neuroanatomy
1 Anatomy and Histology	1 Neuroanatomy
1 Anatomy, Histology, and Embryology	1 Pathological Anatomy
1 Comparative Anatomy	1 Physiological Anatomy
1 Cytology	1 Research Anatomy
1 Histology	1 Surgical Anatomy
11 Histology and Embryology	16 Chemistry
1 Anatomy (Histology and Embryology)	26 Biochemistry
4 Gross Anatomy	13 Biological Chemistry
1 Microanatomy	1 Colloidal Chemistry
3 Microscopic Anatomy	2 Dietetics
	2 Pathological Chemistry

- 15 Physiological Chemistry
  - 1 Chemistry and Physiological Chemistry
  - 1 Biochemistry and Chemical Pathology
  - 2 Biochemistry and Pharmacology
  - 1 Biochemistry and Toxicology
  - 1 Biological Chemistry and Nutrition
  - 1 Physiological Chemistry, Pharmacology and Materia Medica
  - 2 Physiological Chemistry and Toxicology
- 61 Physiology
  - 1 Experimental Physiology
  - 1 General Physiology
  - 1 Research Physiology
  - 2 Physiology and Biochemistry
  - 13 Physiology and Pharmacology
  - 1 Physiology, Pharmacology and Therapeutics
- 29 Bacteriology
  - 2 Immunology
  - 2 Parasitology
  - 1 Research Bacteriology
  - 1 Bacteriology and Clinical Pathology
  - 2 Bacteriology and Experimental Pathology
  - 6 Bacteriology and Immunology
  - 1 Bacteriology and Parasitology
  - 3 Bacteriology and Preventive Medicine
  - 4 Bacteriology and Public Health
  - 1 Parasitology and Pathology
  - 1 Bacteriology, Clinical Pathology, and Public Health
  - 1 Bacteriology, Preventive Medicine, and Public Health
  - 1 Bacteriology, Hygiene, and Public Health
  - 1 Clinical Bacteriology, Hygiene, and Public Health
- 56 Pathology
  - 14 Pathology and Bacteriology
  - 1 Clinical Laboratory Diagnosis
  - 8 Clinical Pathology
  - 2 Comparative Pathology
  - 1 Experimental Pathology
  - 1 Neuropathology
  - 1 Research Pathology
  - 1 Surgical Pathology
  - 1 Pathology and Serology
  - 1 Clinical Pathology and Medical Jurisprudence
  - 1 Epidemiology
  - 4 Hygiene
  - 9 Preventive Medicine
  - 2 Public Health
  - 1 Public Health Administration
  - 1 Public Health Practice
  - 1 Sanitary Science
  - 1 Clinical Epidemiology
- 1 Child Hygiene
- 1 Child Health and Welfare
- 1 Industrial Hygiene
- 1 Social Hygiene
- 2 Clinical Public Health
- 2 Hygiene and Physical Education
- 3 Hygiene and Preventive Medicine
- 5 Hygiene and Public Health
- 1 Industrial Medicine and Occupational Diseases
- 2 Preventive Medicine and Bacteriology
- 1 Preventive Medicine and Community Health
- 1 Preventive Medicine and Epidemiology
- 8 Preventive Medicine and Public Health
- 1 Medicine (Preventive Medicine and Public Health)
- 2 Public Health and Bacteriology
- 5 Public Health and Preventive Medicine
- 2 Clinical Preventive Medicine and Public Health
- 1 Clinical Public Health and Preventive Medicine
- 1 Preventive Medicine, Hygiene, and Public Health
- 2 Pharmacy
- 36 Pharmacology
- 9 Therapeutics
  - 1 Toxicology
  - 1 Research Pharmacology
  - 1 Research Therapeutics
  - 1 Materia Medica and Therapeutics
  - 1 Pharmacy and Materia Medica
  - 1 Pharmacology and Physiology
  - 3 Pharmacology and Therapeutics
  - 2 Pharmacology and Experimental Therapeutics
  - 1 Applied Therapeutics and Clinical Medicine
  - 3 Pharmacology, Materia Medica, and Therapeutics
  - 1 Pharmacology, Materia Medica, and Toxicology
- 88 Medicine
  - 164 Clinical Medicine
  - 1 Clinical Medicine and Therapeutics
  - 7 Internal Medicine
  - 2 Clinical Internal Medicine
  - 1 Medicine and Clinical Medicine
  - 3 Practice of Medicine
  - 1 Principles and Practice of Medicine and Clinical Medicine
  - 2 Theory and Practice of Medicine
  - 1 Theory and Practice of Physic
  - 1 Clinical Investigation in the Department of Internal Medicine
  - 3 Experimental Medicine
  - 2 Research Medicine
  - 1 Research Clinical Medicine

- 13 Dermatology
  - 3 Clinical Dermatology
    - 1 Dermatological Research
    - 1 Oncology
- 23 Dermatology and Syphilology
  - 1 Dermatology and Urology
  - 1 Clinical Dermatology and Oncology
  - 3 Clinical Dermatology and Syphilology
  - 1 Cutaneous Medicine and Syphilology
  - 3 Clinical Medicine (Dermatology)
  - 1 Clinical Medicine (Dermatology and Syphilology)
- 65 Pediatrics
  - 40 Clinical Pediatrics
    - 3 Diseases of Children
    - 4 Clinical Diseases of Children
    - 1 Research Pediatrics
    - 3 Clinical Medicine (Pediatrics)
    - 1 Pediatrics and Infectious Diseases
    - 1 Clinical Pediatrics and Public Health
- 24 Neurology
  - 27 Clinical Neurology
  - 29 Psychiatry
    - 27 Clinical Psychiatry
      - 2 Mental Diseases
      - 3 Mental and Nervous Diseases
      - 3 Nervous and Mental Diseases
      - 2 Clinical Mental and Nervous Diseases
    - 9 Neuropsychiatry
      - 1 Clinical Neuropsychiatry
    - 8 Neurology and Psychiatry
      - 4 Clinical Neurology and Psychiatry
      - 1 Clinical Neurology and Clinical Psychiatry
    - 3 Clinical Psychiatry and Mental Hygiene
      - 2 Neurology and Neuroanatomy
      - 1 Neurology and Neuropathology
      - 1 Neurology and Neurosurgery
      - 1 Neurology and Neurological Surgery
      - 1 Psychiatry and Mental Hygiene
      - 1 Psychiatry and Neurology
      - 1 Experimental and Applied Neurology
        - 2 Clinical Medicine (Neurology)
        - 1 Clinical Medicine (Psychiatry)
        - 1 Medicine (Neuropsychiatry)
        - 2 Clinical Medicine (Neuropsychiatry)
  - 25 Radiology
    - 14 Roentgenology
      - 11 Clinical Radiology
        - 4 Clinical Roentgenology
        - 1 Radiology and Roentgenology
        - 1 Radiology and Electrotherapy
        - 1 Radiology and Physical Therapy
        - 1 Radiology and Physiotherapy
        - 1 Radiological Research
  - 1 Roentgenology and Applied Anatomy
    - 1 Medicine (Radiology)
    - 2 Clinical Medicine (Radiology)
  - 1 Cardiology
    - 3 Clinical Cardiology
    - 1 Cardiovascularrenal Diseases
    - 2 Clinical Cardiovascularrenal Diseases
    - 1 Endocrinology
    - 3 Gastroenterology
      - 2 Clinical Gastroenterology
      - 1 Clinical Gastroenterology and Proctology
    - 2 Physical Diagnosis
      - 1 Physical Therapy
    - 4 Tropical Medicine
      - 1 Clinical Tropical Medicine
      - 1 Diseases of the Respiratory System
    - 2 Tuberculosis
      - 1 Clinical Tuberculosis
      - 1 Phthisiotherapy
      - 1 Medicine in charge of Bacteriology & Immunology
    - 1 Clinical Medicine (Clinical Teaching)
      - 1 Clinical Medicine (Communicable Diseases)
      - 1 Clinical Medicine (Gastroenterology)
      - 1 Clinical Medicine (Tuberculosis)
  - 97 Surgery
    - 148 Clinical Surgery
      - 2 Experimental Surgery
      - 2 General Surgery
      - 2 Clinical General Surgery
      - 1 Principles of Surgery
      - 1 Surgery and Clinical Surgery
      - 1 Surgery and Gynecology
      - 2 Clinical Surgery and Gynecology
      - 1 Principles and Practice of Surgery and Clinical Surgery
      - 1 Surgery and Research Surgery
    - 3 Laryngology
    - 8 Otology
    - 26 Otolaryngology
      - 15 Clinical Otolaryngology
        - 1 Laryngology and Rhinology
        - 1 Clinical Laryngology and Rhinology
        - 1 Laryngology and Bronchoscopy
        - 1 Bronchoscopy and Laryngology
        - 1 Clinical Laryngology and Otology
        - 1 Otology and Rhinology
        - 1 Clinical Rhinology and Laryngology
        - 1 Diseases of Nose and Throat
        - 1 Clinical Diseases of Nose and Throat
      - 8 Otorhinolaryngology
      - 3 Clinical Otorhinolaryngology
      - 1 Laryngology, Rhinology, and Otology

- 1 Clinical Laryngology, Rhinology, and Otology
- 2 Otology, Laryngology, and Rhinology
- 3 Otology, Rhinology, and Laryngology
- 6 Clinical Otology, Rhinology, and Laryngology
- 1 Rhinology, Laryngology, and Otology
- 1 Diseases of the Ear, Nose and Throat
- 1 Otolaryngology and Clinical Bronchoscopy
- 1 Otolaryngology and Oral Surgery
- 1 Clinical Surgery (Otorhinolaryngology)
- 1 Clinical Surgery (Otology, Rhinology, and Laryngology)
- 1 Applied Physics in Otolaryngology
- 49 Ophthalmology
- 26 Clinical Ophthalmology
- 1 Diseases of the Eye
- 1 Ophthalmic Research
- 1 Ophthalmology and Otolaryngology
- 1 Clinical Ophthalmology and Otolaryngology
- 2 Ophthalmology, Rhinology, and Otolaryngology
- 1 Ophthalmology, Otolaryngology, and Rhinology
- 5 Clinical Surgery (Ophthalmology)
- 28 Urology
- 19 Clinical Urology
- 1 Urological Surgery
- 6 Genitourinary Surgery
- 6 Clinical Genitourinary Surgery
- 1 Surgery (Genitourinary)
- 1 Clinical Surgery (Urology)
- 2 Clinical Surgery (Genitourinary)
- 7 Proctology
- 7 Clinical Proctology
- 2 Diseases of the Rectum and Colon
- 1 Surgery (Proctology)
- 1 Clinical Surgery (Proctology)
- 4 Oral Surgery
- 1 Clinical Oral Surgery
- 1 Oral Plastic Surgery
- 1 Stomatology
- 1 Stomatology (Oral Surgery)
- 1 Surgery in charge of Oral and Plastic Surgery
- 1 Clinical Surgery (Oral and Dental)
- 9 Orthopedics
- 1 Clinical Orthopedics
- 1 Orthopedics (Traumatic Surgery)
- 26 Orthopedic Surgery
- 23 Clinical Orthopedic Surgery
- 1 Orthopedic and Fracture Surgery
- 1 Orthopedic Surgery and Roentgenology
- 2 Clinical Surgery (Orthopedics)
- 7 Anesthesia
- 4 Clinical Anesthesia
- 2 Anesthesiology
- 1 Clinical Anesthesiology
- 1 Clinical Surgery (Anesthetics)
- 3 Neurosurgery
- 2 Clinical Neurosurgery
- 6 Neurological Surgery
- 3 Clinical Neurological Surgery
- 1 Clinical Surgery (Neurological)
- 2 Bronchoscopy and Esophagoscopy
- 2 Bronchoesophagology
- 1 Clinical Bronchoscopy and Esophagoscopy
- 1 Bronchoscopy, Esophagoscopy and Gastroscopy
- 1 Bone and Joint Surgery
- 1 Industrial Surgery
- 1 Maxillofacial Surgery
- 2 Traumatic Surgery
- 1 Clinical Surgery (Neoplasms)
- 27 Gynecology
- 26 Clinical Gynecology
- 1 Clinical Gynecology and Gynecological Urology
- 1 Surgery (Gynecology)
- 1 Surgery (Clinical Gynecology)
- 26 Obstetrics
- 20 Clinical Obstetrics
- 4 Gynecology and Obstetrics
- 1 Clinical Gynecology and Obstetrics
- 40 Obstetrics and Gynecology
- 33 Clinical Obstetrics and Gynecology
- 6 Medical Jurisprudence
- 3 Legal Medicine
- 1 Forensic Medicine
- 1 Medical Law
- 1 Legal and Cultural Medicine
- 1 Jurisprudence, Ethics, and Economics
- 1 Criminology, Social Hygiene, and Jurisprudence
- 10 Military Science and Tactics
- 1 Medical Military Science and Tactics
- 1 Medicomilitary Science and Tactics
- 1 Medicomilitary Science
- 1 Dentistry
- 1 Dental Surgery
- 1 Clinical Dental Surgery
- 1 Exodontia
- 1 Operative Dentistry
- 4 Biology
- 6 Zoology
- 1 Medicine (Genetics and Zoology)
- 3 Psychology



1 Clinical Psychology	1 Medical Ethics
1 Experimental Psychology	4 History of Medicine
1 Medical Psychology	2 Hospital Administration
1 Psychobiology	2 Nursing
1 Psychology and Pediatrics	1 Public Health Nursing
	2 Biblical Exegesis
3 Biophysics	1 Geographical Exploration
1 Medical Economics	1 Hydraulic and Sanitary
1 Ethics	Engineering

This list shows 336 varieties of professors in sixty-six medical schools, not counting the varying positions of the adjective "clinical" in professorial titles, nor vagaries in spelling. Much of this variation is due to lack of uniformity in sequence of nouns in binomial and multinomial titles.

Of these, 188 titles, more than one-half are unique, there being only one example of each kind in the list. Occurrence of two, three, four or five examples apply to 84 additional titles, i.e., 80 per cent of the professorial titles used in these schools occur less than six times. Only five titles occur as many as sixty-six times, which is equal to the number of schools tabulated. These are anatomy, medicine, clinical medicine, surgery and clinical surgery. This does not mean that these occur in every school since eleven schools have no clinical professors, which leaves only three titles, less than 1 per cent, that are uniform and found in all schools.

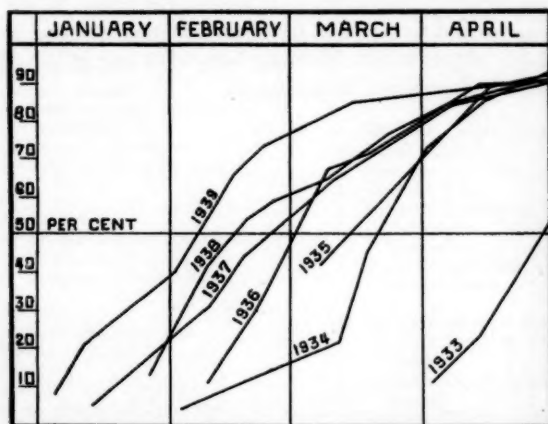
This condition seems to have possibilities for improvement. A special committee of the Association of American Medical Colleges should be able to prepare a list of preferred nomenclature in professorial titles. While some titles are fixed by terms of endowment, and for others tradition is strong, it is probable that most member schools would gradually bring their use of titles into accord with such a suggested preferred nomenclature.

## A Note on Admissions

DWIGHT O'HARA

Vice-Dean, Tufts College Medical School  
Boston, Massachusetts

The periodic studies made by Dr. Fred C. Zapffe reveal that the mass of applicants for admission to medical schools behave a little differently each year. Although the variations are slight in a single year, over a longer period they show decisive trends. As a new outlook forms in the mind of the premedical student, it may, in turn, have an effect on those who labor with the medical schools' selections. Or, perhaps, the primary variation is in the behavior of the admission committees, the applicants merely adjusting themselves to conditions as they seem to find them. Whatever the sequence of cause and effect, a steady increase in the number of applications continues while the number of applicants remains the same from year to year. In spite of the fact that admission committees are evaluating about 20 per cent more applications than they were five years ago, they are not getting any more material from which to choose. They are just working 20 per cent harder for the same thing. In other words, the medical schools are in increasing competition with each other to select the better students, personalities or whatever they do select to bestow their opportunities upon.



The apparent effect of this increasing competition on our admission committee at Tufts is the stimulus of this paper. The personnel of the committee has been sufficiently constant for us to feel that we have been reacting to such changes as those referred to rather than consciously adopting any fundamentally different policy. We suspect that admission committees in other schools are likewise aware of this increasing competition, and have, in some measure, reacted in a similar way. Certainly, if we were to return to our method of procedure for 1933 we

should now be given up as hopeless procrastinators by most of our better applicants. This may readily be seen in the accompanying chart; had we postponed the enrolling of our present freshman class until the first of April, 1939, we would have been April fools indeed.

The date at which enrollment of applicants began each year has been somewhat irregular, depending on the various preoccupations of the committee members and their clerical aides. There has been a distinct tendency to make an earlier start. The date at which 50 per cent of the class was enrolled may be said to represent the time at which the Committee was most actively at work.

These dates, for each of the years, are as follows:

1933—April 29	1937—February 24
1934—March 22	1938—February 16
1935—March 15	1939—February 7
1936—March 2	

The actual completion of enrollment has not been advanced appreciably however. A rather abrupt cessation of activity has taken place when 85 or 90 per cent of the class has been enrolled, after which the remainder of the class are very slowly and carefully selected, albeit from material that is generally considered second class.

Another way of visualizing this change is to mark the per cent of each class enrolled on a given day, for example, on February 15 of each year, as follows:

1933—none	1937—38 per cent
1934—9 per cent	1938—48 per cent
1935—no record	1939—64 per cent
1936—20 per cent	

Last February, President Conant of Harvard read a paper in which he suggested an extreme in which this tendency may eventuate, that is, the selection of students at the end of their freshman year in college on the basis of their school records and their freshman grades. In making this suggestion, however, Dr. Conant had another motive than that of stabilizing the phenomenon here under discussion. He was concerned with the freeing of the liberal arts undergraduate student from three years of grinding out the kind of a premedical record that is reputed to be impressive to our admissions committees. While this suggestion could safely be applied to the better students, it would still leave the selection of the scholastically lower half of those who are taken where it now stands. If for every 50 students we need there are 100 applicants, only about 25 qualify without equivocation. Each school tries to get as many of these twenty-five as possible and then fills up with what seem to be the most promising remaining candidates. The latter selections are difficult and cannot be made hastily.

Although we have proceeded with our work earlier each year, we have still been hastened by applicants who come to tell us or write that they have been accepted by another school and must pay their deposit within a few days or lose that opportunity. This reminds us of the old problem of fraternity rushing and raises the question of whether we might not better serve our prospective

students if we devised for them a sort of "rushing season." All bids extended might be left open to a certain date, such as the first of February, at which time each applicant could go over his bids and pay the customary deposit to the school of his choice. Thereafter classes could be filled as at present. This would provide the better students with a date at which they could make their choice. Up to and beyond such a date they might be freed somewhat from their strivings, while those who go shopping for scholarships might thereby have their shopping days curtailed somewhat. Also the few who feel themselves forced to make duplicate deposits in order to hold their places could frequently be saved this needless expense.

Under the present method of procedure, we base most of our decisions on an essentially unfinished college record, because the grades to be received in the senior courses are unknown. This being already so, it is plain that the present tendency to make earlier choices each year may continue. With this in mind we last year invited the members of the junior class in Tufts College who were planning to apply to the medical school for admission in the fall of 1940, to file their records with us before the closing of college in June. Seventeen students availed themselves of this invitation and during the summer 10 of them were selected. These 10 applicants were notified that they had been accepted when they returned to college this fall, and were given until January 15 to pay the customary deposit of \$50.00. We expect them to take us or leave us on or before that date. It is still too early to decide whether it will be wise to extend this policy beyond our own college family, but at the present time it would seem that these ten accepted applicants have had removed at least a part of the uncertainties of their senior year in college.

Among the medical schools themselves there are different planes of competition, determined by institutional traditions, reputations or possessions. Two institutions in close proximity may be highly competitive or purely complementary to one another. Many local or provincial reputations have not only attached themselves, but have been fostered by medical schools such as Tufts, which finds its alumni body largely concentrated in New England, and which consequently feels itself more closely interested in the fate of the practice of medicine in New England, than in some other, wider fields. Such an attitude is inevitably fostered by those state universities who offer an education to residents at from seventy to thirty per cent of its cost to nonresidents. All of these interests or policies are protective in nature. However effective they may be, they cannot completely mask the growing tendency to compete for the better preclinical material.

This problem has much in common with that surrounding the choice of hospital interns which was discussed last year by Dr. Reginald Fitz. If the discussion of these problems could solve them, life would become much easier and different. Fortunately, perhaps, they cannot be thus dissipated and so will remain to keep us quick. The purpose of this communication is to report the behavior of at least one admissions committee under the circumstances by which

we are all more or less surrounded. The boys compete to enter college, fraternity and social life. After we make them doctors, they compete for hospital, professional and other advantages. While we cannot and should not remove this competitive element, we should recognize that as it extends it will involve us more and more, and that some degree of regulation on our part might provide the students with a more orderly transition from college into medical school.

The data on which we now act is, or could be, ordinarily available in July. None of us need to require deposits from accepted students before January, or, perhaps, later. An effort on the part of admission committees to make their major selections within this five or six month period is suggested as a simple method of attempting to regulate partially our present irregular habits. A distinct tendency to do this has already appeared at Tufts. We consider it a good tendency both from the point of view of our admissions committee and from that of the premedical students.



## Atomic Freedom

A little fly much bothered me,  
At first I tried to swat him,  
Then something told me it would be  
Much better to cremate him.

A flame of fire was prepared,  
And quickly held close to him.  
Within a wink he disappeared  
And left no trace behind him.

Biotic molecules sublimed  
Into the cosmic ether,  
What really did become of him  
We only can conjecture.

Until we can resynthesize  
From space those atoms flying,  
We only can hypothesize  
About his future being.

But if his fate is mystery,  
He's still a form of matter,  
So matter must be better known  
To know what life is better.

If we could hear the atoms talk  
Just when they're separating,  
We might then learn they all would balk  
And fight a recombining.

It may be life's so hard to make  
Within the laboratory  
Because the liberty's at stake  
Of self-respecting atoms.

In life the atom seems a slave  
In molecule connection,  
This caused the fly to misbehave  
To bring their liberation.

If so, it shows behavior is  
A chemical reaction,  
A real atomic consciousness,  
That needs investigation.

The status of our fly then is  
Beyond our present wisdom,  
But wisdom says quite plainly this:  
Give pests atomic freedom.

H. A.

JOURNAL  
OF THE  
Association of American Medical Colleges

Volume 15

JANUARY, 1940

Number 1

*Internships*

The study made recently by the Committee on Internships of the Association of American Medical Colleges made some important findings. The 363 hospitals contacted by the committee—hospitals situated in all parts of the United States — absorb 5,142 interns. The Council on Medical Education and Hospitals of the American Medical Association has approved of 7,832 internships in 734 hospitals. But, there were only 5,089 seniors in all the medical schools of the United States during the 1938-1939 session; in other words, there were only that number of potential interns! Thus about 2,700 approved internships cannot be filled. Furthermore, it must be remembered that some internships are of more than twelve months duration and have gone on that standard only recently so that that situation must be reckoned with in thinking of the supply of interns and available approved internships.

The thought occurs to one that perhaps some internships are not on an educational level and should not, therefore, be approved; that, perhaps, some hospitals have too many interns; that, perhaps, hospitals should give thought to substituting for the intern a house physician, a man who has served an acceptable internship. Certain it is, that some adjustment must be made which will solve existing problems. About 5 per cent of graduates do not take an internship. Some of that group go into research, laboratory service, with no thought of ever going into practice, and some must start in on practice for economic reasons. However, these two groups deplete the ranks of prospective interns to a slight degree and further complicate the existing problems.

The Association is considering all

phases of this problem seriously and has taken steps to bring about their solution.

• •

*The Hospital Internship*

The education of the medical graduate during the year of his hospital internship has for several years past been a matter of growing concern to the administrators of our hospitals. The educational function of the hospital is second in importance only to the professional service and hospital care given the patient. Except in those hospitals where the intern's scholastic accomplishments and ability and desire to learn have been combined with the conscientious effort of the hospital staff to teach him and to make his intern year of the largest value, the year the intern spends in the hospital service has decreased steadily as an important element in the completion of his medical education.

The deans of our medical colleges and their faculties have been aware of these conditions for some years. They have, in many instances, resorted to the remedy of refusing to approve hospitals for intern service of their graduates, when the staffs of such hospitals fail in their obligations to the medical intern and fail in their responsibilities as teachers. This remedy has contributed but little to the cure of a growing evil.

The hospital staff members, as well as the medical colleges, were rudely disturbed from their attitude of smug complacency by Dr. Basil C. MacLean, the Medical Director of Strong Memorial Hospital, in a recent address before the American Association of Medical Colleges, when he emphasized that a majority of internships in our hospitals were not worth "a tinker's dam" to the intern, and stated the reasons why in a most convincing manner.

There are many who will disagree with Dr. MacLean, and more who may disapprove of the stand he has taken, but hospital administrators and the faculties of our medical colleges will support him and endorse both his analyses and his conclusions.

When the intern for any reason is prevented from realizing the largest possible educational values from his intern service, there are three losers: first, the patients under his charge; second, the hospital; and third, and most important from his standpoint, the intern himself.

Upon the completion of his year or more of service in the hospital, the intern becomes an actual or potential member of the staff of some good hospital. The character and extent of his training as intern becomes the hall-mark of the institution in which he has served, and is directly reflected in the quality of his service to the patients he treats, and the training he in turn gives the interns who are year after year assigned to his service in the hospital. The hospitals which build up and maintain high standards of intern training will always have an abundance of applications for their intern appointments. — EDITORIAL: *Hospitals*, 13:67 (Nov.), 1939.

♦ ♦

#### *Approval of Internships*

At the recent annual meeting of the Association of American Medical Colleges, October, 1939, it was unanimously resolved "that the Association assume responsibility for the approval of internships at an adequate educational level and that the Executive Council be authorized to proceed with the formulation of minimum educational standards of an acceptable internship and to prepare a list of hospitals meeting these standards."

It was definitely the opinion of those present at the meeting that such an activity could not possibly be concluded in a short period of time; that, in all probability, the task involved would extend itself over years; however, in view of the fact that it seems to be the

consensus of all those who are involved in such a program that many internships today regarded as being acceptable are really not educational in character, the need for setting up educational standards for the internship is an imperative one.

It was also a unanimous opinion that the medical colleges, in cooperation with hospitals, are the ones to formulate such a program and that medical schools should assume greater responsibility for the internship than has been the case up to the moment. The rapidly developing program for residencies, furthermore, demands that the internship must be wholly educational, in like manner as is the undergraduate medical curriculum and be of the same import.

♦ ♦

#### *A Problem in Medical Education The Medical Student's Point of View*

The medical school representative of the Tulane Hullabaloo, in his recent column, brought out a point which has probably occurred to most of us at one time or another in our medical course:

"It was during a conversation among medical students that a member of the group complained that he had no time for reading and keeping up his cultural education. He was quite bitter about it, and felt that he was losing something that he could never recapture; something he should not deprive himself of or offer as a sacrifice because he was a medical student. 'I want to be a doctor,' he said, 'and I want to treat my patients not as machines but as human beings.' 'The only way I can treat them as human beings is to know human nature and to comprehend the emotions people experience under various circumstances. Since I cannot possibly experience those emotions I must learn about human nature in a second-hand way—by reading good books.'

"In these few words a big problem in medical school was laid bare. For during a period of four years the curriculum absolutely ignores all cultural

material and what is worse, does not permit the student to use his spare time for advancing his cultural education. Most of the student's time is spent preparing his daily work and little time is permitted for outside reading.

"It is true that the primary purpose of professional school is to prepare the student for the profession but at the same time it should not completely ignore the studies which round out the man and make him fit to understand the sociological background of his patients. The doctor should not only know his medicine but be a well-read, cultural individual, capable of understanding people.

"How to solve the problem and still present all the material and training necessary in four short years presents many difficulties. Frankly, I do not know the answer, but if the men who plan the curriculum would give the matter proper consideration, I feel certain that in time they would find the proper solution."

We believe that a solution to this problem is gradually being reached. The increasing bulk of material which it has been found necessary to include in the medical curriculum has forced certain changes in the medical course. Recently some medical educators have shown a tendency to expect undergraduate schools to furnish more along the line of cultural background and general education, in their premedical courses.

In the recent poll of Student Opinion Surveys of America, it was made clear that the students themselves preferred to acquire a wide cultural education during their undergraduate years.

Only 17% of those students polled came out for a college education which would be mainly technical and professional. On the other hand 46% were in favor of receiving a wide cultural background and 37% were for a blending of the two extremes.

Many students at one time or another have been amazed to find that their instructors whom they considered so well versed on the subject of their specialty

were woefully deficient in any discussion of subjects of general interest. Such a restricted knowledge is not advantageous nor is it desirable for the doctor in practice. It is not hard to see that this must be at least partly attributable to an attitude which was formerly held by some, namely, that prospective medical students should have mastered the most advanced biological sciences before entering medical school. This emphasis on the scientific training in both undergraduate and medical schools did not allow a cultural background to be obtained in either place.

It is apparent, therefore, that the solution to the problem is to be approached by the redesigning of the premedical course so that its product will be the ideal medical student who will have a knowledge of the basic sciences as well as a wide cultural background. (L. B. W.)—*The Tiger*, Louisiana State University School of Medicine, Dec. 1, 1939.

♦ ♦

#### *Entrance Credits of 1939 Freshman Class*

The 1939 freshman class numbers 5,800 entrants, 11 fewer than were reported on at the end of the 1938-1939 session. Doubtless, as in former years, some of these students have dropped out of class since the session began for various reasons.

Of the total number only 2.4 per cent (140) had less than three years of college work; 1,639 had three years (or plus) of college work, 28.0 per cent; 358 had four or more years but did not hold a degree, 6.1 per cent; 2,151 had a bachelor of arts degree (or more), 37.7 per cent; 1,507 had a bachelor of science degree (or more), 25.8 per cent. Thus, 63.5 per cent of the entrants had a degree.

Multiple degrees were held by 146 students: A.B., A.M., 48; A.B., B.S., 12; A.B., M.S., 25; A.B., A.M., Ph.D., 3; A.B., M.S., Ph.D., 3; other combinations, 2; B.S., M.S., 30; B.S., M.A., 15; B.S., M.S., Ph.D., 5; various combinations, 5.

These figures indicate that there is an increasing tendency for students to remain in college longer and to secure as much preparation as they can. And, medical colleges are selecting from among the better prepared students than they have heretofore, although the study of applicants shows that students with less than three years of college work are not discriminated against. Each year, fewer students in that group make application.

In the 1939 freshman class there are 317 women and 139 repeaters. The number of women students is increasing whereas the number of repeaters is lessening, which should serve as a warning to all students. It is becoming increasingly difficult for a failed or dropped student to be admitted by any medical school.

• •

#### *The Role of Physics in Premedical Training*

To teachers of physiology, perhaps more than any others in medical schools, it is apparent that there is a certain amount of undesirable deficiency in the preparation of medical students in the subject of physics, possibly not so much in the content of knowledge as in lack of ability to make intelligent use of such knowledge in the biological aspects of medicine. There is a great field of application of physics which has been developed, mainly, not by the physicists themselves but by the biologists. Few of the conventional textbooks of physics make any definite reference to this field. Heretofore the only outlet for physics lay in the various fields of engineering. It seems perfectly proper, then, that illustrative material used in teaching should be drawn from those fields. Perhaps there are practical difficulties in the way of such illustrations from the biological fields but at present the author sees no important reason for the apparently studied avoidance of all reference to biophysics other than custom.

Medical students have grown steadily more antagonistic toward premedical physics, wherever taught. Unless some

rearrangement is possible it is not unlikely that the professional school will be compelled to revert to the practice of 25 or 30 years ago when compact, well-organized courses in physics, organic chemistry and physical chemistry were taught in the medical schools themselves and just as is now done in pharmacy schools where a pre-professional college course is not required for entrance. There are many objections to this, which were responsible for abandonment of the plan in the first place. The chief reason is that it will add greatly to the cost of a medical course since, in order to maintain a high standard of instruction an entire new department must be added to the already over-crowded medical curriculum as well as a separate set of equipment.

It seems likely that there may then be a still further separation between the more conventional aspects of physics and biophysics.

The general lines along which teachers of premedical physics have proceeded appear to be sound but more reference to biological applications and more illustrative material would be desirable. More than ever before the student needs basic knowledge of physics (1) as a tool to be used in acquiring special knowledge of bodily functions: (2) as a basis for comprehension of future progress, (3) for protection against the ingenuity of the charlatan such as those who developed and promoted the therapeutic use of the Abrams machine and the Ionaco horse collar, (4) for application to diagnostic methods, (5) and lastly, for the small number who will enter the research field to use in devising better methods of approach to the many problems yet unsolved.—C. I. REED: *School Science and Mathematics*, November, 707-715, 1939.

• •

#### *Massachusetts New Law in Re Approval of Medical Colleges*

Quoted from official letter: "The Approving authority will make up its own rules and as the American Medical



Association is only a private organization its rating of schools will be taken by the Approving Authority only as suggestive of qualifications or disqualifications. The same thing will be true of the Association of American Medical Colleges. For schools outside of the Commonwealth of Massachusetts the Approving Authority will seek first the opinion of the State Board in which the school is situated as to the standing of the school, and in most cases the Authority will be guided by the opinion of such Board. In any doubtful cases, however, this Board is likely to make its own investigation, and it will investigate all schools situated in Massachusetts."

The act creating the Approving Authority does not become effective until after January 1, 1941, when the decisions of the Authority will be published formally.

\* \*

#### *What is Culture?*

Culture is difficult to describe. It is perhaps easier to say what it is not than what it is. It is certainly not encyclopedism: the knowledge of everything; neither is it specialization: the knowledge of one thing. Indeed it is not knowledge at all, but knowledge transmuted into power—pollen into honey.

It is the result of a method for training the mind, that has endeavored to teach it to think, to think clearly. Montaigne has said: "Better a head well made than a head well filled." A head well made is the product of culture.

Perhaps the best definition would be to say that culture is what remains when you have forgotten everything.

What is it that remains? Many things:

The understanding quickened and deepened—a breadth of outlook—a catholicity of sympathies—a refinement of taste—an appreciation of beauty—a delicacy of feeling—a sense of measure—a modesty of judgment—a critical habit of mind—the habit of taking nothing for granted—of thinking for one's self—that habit which is the very soul of liberty—the habit of sincere unbiased approach to any problem and of the undaunted pursuit of its ultimate solution in a real scientific spirit—a proper and balanced conception of the various uses of life—of its graces as well as its utilities.

Those are some of the things that remain, some of the elements of that full and rounded life for which we endeavor to prepare our students.

—Auguste Desclos  
noted French educationist.

---



---

## College News

---



---

### *University of Chicago*

Decisions of their respective boards affecting the future of medicine and medical education on the West Side have been jointly announced by President Robert M. Hutchins of the University of Chicago and John McKinlay, President of the Board of Managers of the Presbyterian Hospital. The University of Chicago has decided to terminate undergraduate medical education at Rush Medical College and the Board of Managers at Presbyterian has voted that the hospital remain in its present location at 1753 W. Congress Street. As a result of these decisions, the University will establish a program of graduate medical education at Rush. Committees will be appointed shortly to formulate plans for the graduate school, which it is hoped will be opened in the near future.

The graduate school, it is contemplated, will emphasize research in medical science, and provide training for graduates of medical schools in the various fields of specialization. Undergraduate work will continue, however, at Rush for the next three years, through July, 1942, to provide completion of training for the class entering next autumn (1940). Undergraduate training also will continue at the South Side medical school, and after 1942 will be offered there exclusively.

Chartered in 1837, Rush began its first course of instruction in 1843 and is the oldest medical school in the Middle West. It has been located on its present site at 1758 West Harrison Street since 1876. In 1924 the college merged with the University of Chicago after 26 years of affiliation.

\* \*

### *University of North Carolina School of Medicine*

December 4, 1939, the University of North Carolina celebrated the opening of the new Medical Laboratories Build-

ing as a part of its general Sesquicentennial Celebration. The exercises consisted in the morning of an address by Professor E. K. Marshall, Jr., of the Johns Hopkins Medical School on "Medical Research. The Story of Sulfanilamide." The exercises in the afternoon were continued by an address by Dr. David Riesman, Professor of the History of Medicine, School of Medicine of the University of Pennsylvania, "The Making of a Clinician," and by Dr. G. Canby Robinson, Lecturer in Medicine and Director of the Medical Clinic, the Johns Hopkins University Medical School, "The Application of Medical Science to the Individual."

An informal tea in conjunction with the inspection of the medical laboratories and the medical dormitory was held in the Charles E. Kistler Memorial Library of the Medical School.

At the evening meeting Dr. Frank G. Boudreau, Executive Director of the Milbank Memorial Foundation, addressed a dinner gathering on "New Health Frontiers." Greetings were brought to the University and Medical School by various alumni and friends.

\* \*

### *University of California Medical School*

The University of California Medical School will offer a course for general practitioners at the University of California Hospital in San Francisco from January 3 to 6, 1940. The subject will be "Recently Acquired Knowledge Applicable in Practice." The course has been designed to meet the needs of the physician in private practice. Many of the discussions will be illustrated by patients, lantern slides and pathological material. It is anticipated that there will be a large attendance.

The University has received \$27,166 in gifts for cancer research by Ernest O. Lawrence, Ph.D., professor of

physics and Director of the radiation laboratory. The U. S. Public Health Service gave \$23,000 for cancer work under the provisions of the National Cancer Institute Act and the Rockefeller Foundation gave \$4,166. Other donations included \$5,000 by the General Education Board, New York, for the Institute of Child Welfare; \$3,000 for research on sylvatic plague at the Hooper Foundation by the Rosenberg Foundation; \$900 to the Institute of Child Welfare by the Josiah Macy, Jr., Foundation, and \$3,750 for research by Dr. Herbert M. Evans on hormones, by the Rockefeller Foundation.

• •

*Louisiana State University  
School of Medicine*

Dr. Philips J. Carter, professor of obstetrics and gynecology and co-director of the department, gave a course of instruction to practitioners in the northern part of Louisiana recently. The instruction is being given as part of the program of the Division of Maternal Welfare of the Louisiana State Board of Health, under the direction of the Committee on Maternal Welfare of the United States Government, and in cooperation with the Louisiana State Medical Society. At each place there was given a formal lecture lasting two hours, followed by a general conference on these subjects and such other subjects as the visiting doctors brought up. Dr. Rupert Arnell, clinical professor of obstetrics and gynecology, and Dr. William F. Guerriero, instructor in these subjects, gave similar post-graduate instruction in various towns.

Dr. Carlo J. Tripoli has been appointed professor of medicine in charge of the department of medicine of the Graduate School of Louisiana State University, New Orleans.

• •

*State University of Iowa  
College of Medicine*

Dr. E. M. K. Geiling, professor of pharmacology, University of Chicago, gave the third annual Rockwood lecture November 14th. His subject was "The

Comparative Anatomy and Pharmacology of the Pituitary Gland."

Dr. K. G. Wakim, of the Mayo Foundation, has been appointed acting professor of physiology for the six-month period from January 1 to July 1, 1940. Dr. Wakim will assume the teaching duties of Dr. Harry M. Hines, who is spending the year doing special work at Cornell University.

Dr. Hale F. Shirley, assistant professor of psychiatry, has resigned. He will be assistant professor of psychiatry and pediatrics at Stanford University and Director of the Child Guidance Clinic, San Francisco.

Dr. J. A. Greene, associate professor of internal medicine, has received a grant of \$600 from the Upjohn Company, for studies on amino acid metabolism.

• •

*Duke University  
School of Medicine*

October 14th Dr. Marvin A. Stevens, of the Yale University School of Medicine, held a clinic on athletic injuries.

October 19-21, the Annual Post Graduate Symposium on Diseases of the Lungs and Thorax was held, in which the following participated: Dr. Edward D. Churchill, Dr. Frederick T. Lord and Dr. Maxwell Finland, of the Harvard Medical School; Dr. Daniel M. Brumfiel, of Trudeau Tuberculosis School, Saranac Lake, N. Y.; Dr. Chester A. Stewart, of the University of Minnesota School of Medicine; Dr. Edward N. Packard, of the New York State Hospital for Incipient Tuberculosis, Ray Brook, N. Y.; Dr. Cameron Haight, of the University of Michigan; Dr. William DeW. Andrus, of Cornell University; Dr. Isaac A. Bigger, of the Medical College of Virginia; Dr. Charles R. Austrian and Dr. William F. Rienhoff, of the Johns Hopkins University School of Medicine; Dr. Dickinson W. Richards, Jr., of Columbia University College of Physicians and Surgeons; Dr. Stuart W. Harrington, of Mayo Clinic; Dr. Daniel C. Elkin, of Emory University School of Medi-

cine, and Dr. Gabriel Tucker, of the University of Pennsylvania School of Medicine.

\* \*

*Western Reserve University  
School of Medicine*

President Winfred G. Leutner announces that the Trustees of Western Reserve University and of the Brush Foundation have entered into agreements by which the scientific studies of Human Growth, Development, and Sex, initiated by the late Dr. T. Wingate Todd for the Brush Foundation and other Foundations, and future scientific studies sponsored by the Brush Foundation, will be conducted in the School of Medicine of Western Reserve University, through a full-time Director of the Brush Foundation appointed by this Foundation with the concurrence of the University, and affiliated with the department of anatomy of the School of Medicine.

In accordance with this arrangement, Dr. William W. Greulich, research associate in anatomy and physical anthropology at Yale University and Research Adviser of the Brush Foundation, has been appointed Director of the Brush Foundation and professor of physical anthropology and anatomy in the Department of Anatomy of the School of Medicine. In addition to his duties as Director of the Brush Foundation, Dr. Greulich will participate in the departmental teaching of anatomy under Dr. Normand L. Hoerr, professor of anatomy and head of the department.

President Winfred G. Leutner announces the appointment of Dr. Carlos Eugene Pitkin as Clinical Professor of Otolaryngology of the School of Medicine of Western Reserve University and Otolaryngologist at the University Hospitals, to head clinics and give instruction in diseases of the nose, ear, and throat in these institutions. He succeeds the late Dr. William B. Chamberlin, who died September 6th, with whom he had long been closely associated in private practice, as well as in the Medical School and the University Hospitals.

*University of Virginia  
Department of Medicine*

The twenty-fourth Post Graduate Clinic sponsored by the University Medical School and the Division of Extension was held on November 3rd with the following program: "The Modern Treatment of Gonorrhea," by Dr. Samuel A. Vest; "The Neuro-Surgical Aspects of Low Back Pain and Sciatica," by Dr. John M. Meredith; "An Evaluation of Vaccines and Sera in Prophylaxis and Treatment," by Dr. George M. Lawson; "Changes in Radiation Therapy," by Drs. Vincent Archer and George Cooper; a symposium on Hypertension: "Experimental Hypertension," by Dr. Alfred Chanutin; "Pathological Physiology of Human Hypertension," by Dr. Eugene M. Landis, and "The Treatment of Human Hypertension," by Dr. J. Edwin Wood. The Clinic was attended by sixty-seven physicians.

November 3rd, Dr. Adolph Meyer, professor of psychiatry at the Johns Hopkins University, delivered an address on the occasion of the dedication of the John Staige Davis Neuro-Psychiatric Wards. He spoke on the subject of "The Person in Medical Practice and Teaching."

\* \*

*Georgetown University  
School of Medicine*

Dr. Harry Stack Sullivan, New York, president of the William Alanson White Psychiatric Foundation and faculty chairman of the Washington School of Psychiatry, has been appointed professor of psychiatry and director of the department of psychiatry and neurology at Georgetown University School of Medicine. He succeeds the late Dr. Daniel Percy Hickling, who was a member of the faculty of Georgetown for more than forty years.

\* \*

*University of Alberta  
Faculty of Medicine*

Dr. Allan C. Rankin, dean, has joined the military forces of Canada and Dr. John James Ower has been made acting dean for the present session.

*University of Vermont  
College of Medicine*

Promotions: Dr. M. N. Bellerose, from instructor to assistant professor of orthopedic surgery; Dr. P. D. Clark and Dr. R. E. Corley, from instructor to assistant professor of pediatrics; Dr. J. E. Davis, from instructor in physiological chemistry and pharmacology to assistant professor of pharmacology; Dr. A. G. Mackay, from instructor to assistant professor of surgery. Dr. Louis Rabinowitz, from instructor to assistant professor of preventive medicine.

• •

*College of Medical Evangelists*

The College announces the accidental death of Doctor Oran I. Cutler, professor of pathology, who was in charge of all teaching of pathology in the pre-clinical section of the School.

Through funds made available by the General Conference of Seventh-day Adventists, the College is now building a new structure in the Loma Linda Division to house the departments of pharmacology, physiology, chemistry and physical therapy. The new building not only includes spacious laboratories and amphitheatres, but facilities for research work in the departments mentioned. Constructed as an annex to this building is the new Animal House in which these departments will carry forward their animal research work. The completion of this new building now makes it possible for all of the preclinical departments to be housed in new modern structures.

• •

*University of the Philippines  
College of Medicine*

Dr. Antonio G. Sison, dean, has been appointed director of the Philippine General Hospital also. The work of the hospital will be coordinated with that of the various units of the medical school. President Quezon also authorized the establishment of a graduate school in the medical college in accordance with provisions of a law appropriating money for the purpose.

*Harvard Medical School*

Dr. Leroy A. Schall, instructor in laryngology, Courses for Graduates, Harvard Medical School, Boston, has been promoted to the position of Walter Augustus Lecompte professor of otology and professor of laryngology, succeeding Dr. Harris P. Mosher, who becomes professor emeritus.

• •

*University of Oklahoma  
School of Medicine*

Dr. Benedict E. Abreu, formerly with the West Virginia University School of Medicine, has been appointed instructor in pharmacology.

• •

*Creighton University  
School of Medicine*

Dr. Gustave W. Dishong, professor and head of the department of nervous and mental diseases at Creighton University School of Medicine, Omaha, since 1919, has retired after twenty-seven years on the faculty. Dr. Dishong has been succeeded by Dr. Ernest Kelley, associate professor in the department.

• •

*Long Island  
College of Medicine*

The Board of Trustees of the Long Island College of Medicine announces the election to membership of Mr. Raymond P. Sloan. Mr. Sloan is vice-president of the Modern Hospital Publishing Company, Inc.; associate editor of "Modern Hospital," and managing editor of "The Nation's School."

• •

*University of Minnesota  
School of Medicine*

Dr. Irving McQuarrie, professor and head of the department of pediatrics will go to China about January 1 to serve as visiting professor in pediatrics at Peiping Union Medical School. Dr. McQuarrie was granted a leave of absence by the university board of regents and will return to the university next year.



*University of Rochester  
School of Medicine*

Dr. George W. Corner, since 1924 professor and chairman of the department of anatomy has been appointed director of the department of embryology of the Carnegie Institution of Washington, effective May 1, 1940, on the retirement of Dr. George L. Streeter, who joined the Carnegie staff in 1914 and became director of the department of embryology in 1917. The Carnegie laboratory of embryology is located in Baltimore.

• •

*Indiana University  
School of Medicine*

Indiana University will give the City Hospital dispensary \$10,000 annually to improve the service and teaching facilities for the School. The School will provide four full time physicians at the City Hospital. This program will prove valuable for the medical students.

• •

*Cornell University  
Medical College*

Joseph C. Hinsey, Ph.D., professor and head of the department of physiology has been appointed professor and head of the department of anatomy to succeed the late Charles R. Stockard, Ph.D. During the present year he will also be acting head of the department of physiology. William H. Chambers, Ph.D., has been promoted to the rank of associate professor of physiology and Kendrick Hare, Ph.D., to that of assistant professor of physiology.

• •

*University of Oregon  
Medical School*

The following grants in aid have been received for the department of pharmacology: \$1200 from Eli Lilly and Co. to continue the Eli Lilly Fellowship in Pharmacology and to support studies on the water soluble testicular hormone now being carried on by Prof. N. A. David and Dr. Ben Vidgoff; \$300 from the Committee on Scientific

Research of the American Medical Association to Dr. Ben Vidgoff for continuation of studies on the interrelationship of sex hormones; \$540 from the Research Council, Oregon State System of Higher Education for a research assistant and to support studies on morphine and barbital addiction; and \$645 from Ciba Pharmaceutical Co., Summit, New Jersey to Drs. F. Bertram Zener and Nilkanth Phatak for investigating blood iodine values in pregnancy.

• •

*Marquette University  
School of Medicine*

The fifth annual Lippitt Memorial Lecture at Marquette University School of Medicine will be delivered January 19 by Dr. Harry Goldblatt, professor of experimental pathology and associate director of the Institute of Pathology, Western Reserve University School of Medicine, Cleveland. Dr. Goldblatt's subject will be "Experimental Observations on the Pathogenesis and Treatment of Hypertension."

• •

*Millions for Medical Research  
Northwestern University  
University of Chicago*

Gifts of approximately \$1,500,000 to Northwestern University and of approximately \$1,000,000 to the University of Chicago are announced by the Trustees of the Estate of Clara A. Abbott. Both gifts will be used for medical and chemical research.

The gift to the University of Chicago will operate to secure for that Institution an additional \$1,500,000 from the Rockefeller Foundation to be used for Biological Research which was promised conditionally upon the University securing an additional amount now realized by the Abbott Estate gift.

Clara A. Abbott was the widow of Dr. Wallace C. Abbott, Founder of Abbott Laboratories. The latter was a practicing physician in Chicago for many years and began the manufacture of chemicals and pharmaceuticals in Ravenswood, Ill., in 1888. He died in 1921.

*University of Cincinnati  
College of Medicine*

The president of the University and the faculty of the College of Medicine sponsored a dinner December 6 in honor of Dr. Albert H. Freiberg, recently retired professor of orthopedic surgery. Dr. Martin H. Fischer was toastmaster and the speakers were Raymond Walters, LL.D., president of the university; Drs. Stanley E. Dorst, Mont R. Reid and David I. Wolfstein, and the Rev. Jesse Halsey, pastor of the Seventh Presbyterian Church. A portrait of Dr. Freiberg was presented to him.

• •

*New York Medical College*

The dedicatory exercises of the new college building situated at Fifth Avenue at 105th Street were held December 12, 1939. Thirty medical colleges were represented. Among the speakers were Mr. Charles D. Halsey, chairman of the Board of Trustees; the Honorable Fiorello H. LaGuardia, mayor of the city of New York; Dr. Harold Willis Dodd, president of Princeton University, and Dr. Lewis H. Weed, professor of anatomy, Johns Hopkins University School of Medicine.

Dr. Claude A. Burrett, formerly dean, has been appointed president of the college. He is succeeded in the deanship by Dr. Ferdinand C. Lee, also professor and head of the department of

surgery. Other appointments are: Dr. Thomas I. Hoen, professor of neurosurgery and head of the department of neurosurgery and neuropsychiatry; Dr. R. Townley Paton, professor and head of the department of ophthalmology; Dr. Wm. H. Everts, professor of neurology.

Promotions: Dr. Stephen P. Jewett, to professor of psychiatry; Dr. L. Corson Reid, to associate professor of pathology; Dr. Frank J. Borrelli, to assistant professor of radiology; Dr. Francis D. Spear, to assistant professor of pathology.

• •

*State University of Iowa  
College of Medicine*

The State University of Iowa College of Medicine has received a gift of \$5000 from Mrs. Edith Graham Mayo of Rochester, Minn. in the name of herself and the late Dr. Charles H. Mayo for the establishment of a memorial to their son, the late Doctor Joseph Graham Mayo. The fund is for the support of a lectureship or research scholarship. Dr. Joseph Mayo was a graduate of the Iowa College of Medicine in 1927, and died in 1936.

Dr. Hale F. Shirley, assistant professor of psychiatry, has resigned to become assistant professor of psychiatry and pediatrics at Stanford University School of Medicine and director of the Child Guidance Clinic, San Francisco.

---



---

## General News

---



---

### *American Public Health Association*

At the recent annual meeting of the Association, Dr. W. S. Leathers, dean Vanderbilt University School of Medicine, was elected president-elect, Dr. Edward S. Godfrey, Albany, N. Y., assuming the presidency.

The Association adopted several resolutions, one rededicating the profession to the translation into effective action of principles relating to health conservation of the nation declared earlier; another urged State Department of Health responsibility for direction of tax supported industrial hygiene services; a third urged that any expansion through increased federal appropriation, which includes health and medical services to children, be developed through agencies whose primary concern is with health services; another declared peace throughout the world essential to the attainment of the aims and aspirations of public health workers.

The 69th Annual Meeting of the Association will be held in Detroit, Michigan, in October, 1940.

♦ ♦

### *Mental Hygiene Program At University of Texas*

Establishment of a lecture foundation and provision for a state-wide mental-hygiene program is made possible by the \$2,500,000 gift of the late Will C. Hogg to the University of Texas. University officials described the gift, mainly in the form of oil lands and Houston real estate, as "one of the outstanding contributions to Texas education in the state's history."

More than \$300,000 has been made available by the Will Rogers Memorial Commission to set up scholarships to aid physically handicapped students in three state universities. Both the University of California and the University of Oklahoma received \$125,000,

and the University of Texas received \$60,000 to set up Will Rogers Memorial Scholarship Funds. Because of Will Rogers' great interest and love for children the funds will be used to educate handicapped students. Several scholarships and prizes ranging from \$100 to \$500 will probably be available annually at each of the three schools.

♦ ♦

### *Mary Putnam Jacobi Fellowship*

The Women's Medical Association of New York offers two Mary Putnam Jacobi fellowships for the year nineteen forty. One of five hundred dollars (\$500), available January first, will be given to an American woman physician to carry on or complete some special problem in medical research. Applications must be in by December first, nineteen hundred thirty-nine.

The regular fellowship of one thousand dollars (\$1000), available October first, is open to any woman doctor, either American or foreign. Applications for this fellowship must be in by March first, nineteen hundred forty.

For both fellowships, applicants must be graduates of reputable medical schools. Applications should be filed with the secretary of the committee and must be accompanied by statements as to (1) health (2) educational qualifications, (3) previous work, (4) proposed problem for investigation, and (5) a photograph of the applicant. It is not practicable for the secretary to write for letters about candidates. Therefore applicants should send with their applications sufficient data to enable the committee to judge of their respective merits.

The recipients of these fellowships will be expected to give full time to the study of their problems, and to make reports for publication at the completion of their researches.

Application blanks may be obtained from Phebe L. Dubois, M.D., Secretary, 150 East 73rd Street, New York City.

• •

#### *European Journals and the War*

The non-receipt by a subscriber of any European chemical or other scientific journal seriously needed as research material should be promptly reported to the American Documentation Institute. The Cultural Relations Committee of ADI, which cooperates closely with the Cultural Relations Division of the Department of State, is working on this problem, and hopes to be able to surmount such war obstacles as interrupted transportation, embargoes and censorship, which so grievously affected the progress of research during the last war. The principle should be established, if possible, that the materials of research having no relation to war shall continue to pass freely, regardless of the countries of origin or destination.

Reports, with full details of where subscription was placed and name and address of subscriber, volume, date and number of last issue received, should be addressed to: American Documentation Institute, Bibliofilm Service; U. S. Department of Agriculture Library, Washington, D. C.

• •

#### *Association of American Colleges*

The twenty-sixth annual meeting of this association will be held in Philadelphia, January 11 and 12, 1940. The topic "Relations Between the Liberal Arts College, the Junior College and the Professional School" will be discussed by Dr. Willard C. Rappleye, president of the Advisory Council on Medical Education (created by the Association of American Medical Colleges).

#### *Nu Sigma Nu*

Dr. David P. Barr, professor of Medicine, Washington University School of Medicine, delivered an open lecture on "The Nature of Obesity" in the auditorium of the Cornell University Medical College, 1300 York Avenue, New York City, December 13, 1939, under the auspices of Nu Sigma Nu.

• •

#### *For Sale*

Dr. F. C. Waite, Western Reserve University School of Medicine, Cleveland, Ohio, wishes to dispose of the following publications of the Association of American Medical Colleges:

(1) Report of the Committee on Syllabus, 1895; (2) Transactions, bound, 1898; unbound, 1897, 1903, 1904, 1905, 1906, 1908, 1910, 1920; (3) Proceedings, (bound in four volumes), Vol. 18 (1908) to Vol. 36 (1925), inclusive. (4) Journal, bound, Volumes 1 to 13 (beginning in 1926); unbound, Volume 14 (1939). (5) Duplicates of Journal, unbound: Vols. 2 (1927); 3 (1928); 4 (1929); 5 (1930) (No. 2, March, missing.); 6 (1931); 7 (1932); 8 (1933); 9 (1934); (Nos. 1 and 2 only).

Address Dr. Waite.

• •

#### *Knapp Memorial Foundation in Ophthalmology*

Announcement. The Herman Knapp Memorial Eye Hospital has been merged with the Columbia-Presbyterian Medical Center. The hospital's assets and funds will be conveyed to Columbia and will be administered as the Knapp Memorial Foundation in Ophthalmology, the income of which will be used for graduate study, teaching and research in ophthalmology.

---



---

## Book News

---



---

### *Clinical Roentgenology of the Digestive Tract*

By Maurice Feldman, M.D., Assistant Professor of Gastroenterology, University of Maryland. William Wood & Company, Baltimore. 1938. Price, \$10.

This is a complete coverage of the diagnostic roentgenology of the gastrointestinal tract, stressing, in the main, its importance as an aid to clinical diagnosis. The author's many years of experience in this field justify the statement that his work is authoritative and reliable. An excellent, carefully chosen bibliography connotes extensive research into the literature on the subject. Many hundreds of illustrations and tables enhance the value of the 220 chapters.

\* \*

### *Textbook of Biochemistry*

By Roger J. Williams, Ph.D., Professor of Chemistry, Oregon State College. D. Van Nostrand Company, Inc. New York City. 1938. Price, \$6.

This book should appeal to medical students because it is written to develop insight into the phenomena of biochemistry rather than to present didactically a mass of information on the subject. Consists of five parts: I. Biochemical materials; II. Tissue Composition; III. Food Composition. IV. Bodily Mechanisms for Promoting and Regulating Chemical Change. V. Metabolism.

\* \*

### *Form and Functions of the Central Nervous System*

An Introduction to the Study of Nervous Diseases. By Frederick Tilney, M.D., Director Emeritus Neurological Institute, New York, and Henry Alsop Riley, M.D., Professor of Neurology and Neuroanatomy, Columbia

University College of Physicians and Surgeons, New York. 3d Ed. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, New York. 1938. Price, \$10.

This book cannot fail to make a large appeal to specialists in this field of medicine. By condensation of certain parts, the authors have attempted to bring it to the medical student. It is beautifully written, comparatively easy to understand and the many hundreds of illustrations actually elucidate the text admirably. References for supplementary reading are given.

\* \*

### *Medicine in Modern Society*

By David Riesman, M.D., Professor of the History of Medicine, University of Pennsylvania. Princeton University Press, Princeton, New Jersey. 1939.

Medicine in Modern Society grew out of the author's belief that "the history of medicine is in reality an epitome of the history of civilization and should form a part of every man's culture." This volume has been developed from a series of lectures known as the Vanuxem lectures which Dr. Riesman delivered at Princeton University.

In this fascinating book, Dr. David Riesman brings the story of the development of modern medicine down from the heights of biography, autobiography, and textbook eulogy, and tells it for the average man in a simple, stimulating, and thoroughly personal way. He explains metabolism, allergy, vitamins, hormones, and all the factors which have a constant and important effect on everyday life, and discusses as well the wider fields such as surgery, x-ray and radio-therapy and viruses which may touch the average man comparatively seldom. The author points out that specialization and research are the most logical outlets for rising young doctors.



He particularly recommends to the new practitioner the comparatively untouched fields of industrial medicine, public health work and teaching of medicine.

A knowledge of medical history and medical principle is fully as important to the education of the individual as is the knowledge of art or music, and this book places medicine in the main stream of history and gives it its full due. The result is an exciting story.

\* \*

#### *Physical Diagnosis*

By Richard C. Cabot, M.D., Professor of clinical Medicine, Emeritus in Harvard University, and F. Dennette Adams, M.D., Instructor in Medicine in Harvard Medical School. 12th Ed. Baltimore. William Wood & Company. 1938. Price, \$5.

The general purpose of this book, as stated by the authors, is to show "how we think the patient should be examined, to describe and interpret important signs and symptoms, and briefly to discuss the more common disorders in which they occur." This they have done well. This book has been a standard text in use in medical colleges for many years. The present edition should sustain the high regard in which Cabot's *Physical Diagnosis* has been held since it first appeared.

\* \*

#### *Insulin: Its Chemistry and Physiology*

By Hans F. Jensen, Ph. D., Associate, Laboratory for Endocrine Research, the Johns Hopkins University. The Commonwealth Fund. New York. 1938. Price, \$2.

This book records and evaluates most of the important literature on the chemistry and physiologic action of insulin up to January 1, 1938. Included are the observations made by the author and his associates in their researches. The author has attempted to correlate all the infor-

mation thus far gained on the influence of insulin on carbohydrate metabolism. He points out that recent researches in this field have brought out the fact that carbohydrate metabolism is controlled not only by insulin alone but also by various other endocrine principles. The clinical aspects are referred to briefly.

\* \*

#### *Biochemistry for Medical, Dental and College Students*

By Benjamin Harrow, Ph.D., Chemistry Department, City College, College of the City of New York. W. B. Saunders Company, Philadelphia. 1938. Price, \$3.75.

Special emphasis is placed on the application of biochemistry to clinical medicine. The text is well illustrated and a practical bibliography is included with each chapter. In this emphasis is placed on reviews rather than on original papers; preference is given to articles written in English. It is essentially a course book rather than a complete text on biochemistry which every student will appreciate.

\* \*

#### *Outline of Roentgen Diagnosis*

Student edition; without the atlas. By Leo G. Rigler, M.D., Professor of Radiology, University of Minnesota. J. P. Lippincott Company, Philadelphia. 1938.

A synopsis presented in outline form stressing the relative value of roentgen diagnosis in each disease process, specially prepared for medical students. This is an excellent book, one which every medical student will appreciate.

\* \*

#### *Correction*

Sir Norman Walker's *DERMATOLOGY*, 10th Ed., reviewed in our July issue should have been listed as a William Wood book (Williams & Wilkins, Baltimore) and the price \$7.00.

*Textbook of Pathology*

A Correlation of Clinical Observations and Pathological Findings. By Charles W. Duval, M.D., Professor of Pathology and Bacteriology, and Herbert J. Schattenberg, M.D., Associate Professor of Pathology and Bacteriology, Tulane University School of Medicine. D. Appleton-Century Company, New York. 1939. Price, \$8.50.

The authors stress the relationship between pathological physiology and altered tissue changes or morbid anatomy. The theme of the text is the pathology of the living patient. An attempt is made to explain the clinical criteria on the basis of the pathological findings. Numerous references are cited but only to articles having appeared in the English language as the authors feel that the medical student is not sufficiently conversant with foreign languages to be able to read them understandingly—a point well taken. There is a good chapter on the significance and conduct of the autopsy and on how to write a good protocol. The text is amplified by hundreds of original illustrations.

\* \*

*Life and Letters of  
Dr. William Beaumont*

(A New Print.) By Jesse S. Myer, M.D., Late Associate in Medicine in Washington University, St. Louis, with an introduction by Sir William Osler, Late Regius Professor of Medicine in Oxford University, England. The C. V. Mosby Company, St. Louis. 1939. Price, \$5.

Whoever is interested in the wonderful experiments made by Dr. Beaumont, and who is not, will appreciate this fine volume. Besides Osler's introduction, there is an expression from Dr. A. C. Ivy on the value of Beaumont's experiments and some hitherto unpublished letters written by Alexis St. Martin now in the possession of Dr. Frederick R. Collier, Professor of Surgery, University of Michigan.

\* \*

*Health Officers' Manual*

By J. C. Geiger, M.D., Director, Department of public health, City and County of San Francisco. W. B. Saunders Company, Philadelphia. 1939. Price, \$1.50.

This new manual was written especially for health officers, public health administrators and all others concerned with the administrative and technical problems of organized public health work. It is based on the author's own wide personal experience and covers today's accepted methods and procedures.

There are sections on industrial hygiene, the selection of camp sites and the special health problems involved, and a full discussion of the purpose and duties of the public health department's laboratory.

*The Endocrine Glands*

By Max A. Goldzieher, M.D., Endocrinologist Gouverneur Hospital and Brooklyn Women's Hospital. D. Appleton-Century Company, New York. 1939. Price, \$10.

This book represents the author's studies in the field of endocrinology for the past thirty years. Hence, it must be regarded as being authoritative. The book is well illustrated and there are many chapter references to the literature. It is literally stuffed with information derived from long experience and a thorough knowledge of the whole subject.

\* \*

*Heart Patients:  
Their Study and Care*

By S. Calvin Smith, M.D., Formerly Special Heart Examiner for the Surgeon General's Office. Lea & Febiger, Philadelphia. 1939. Price, \$2.

This work covers the modern trend in the treatment of heart patients and is designed to be a guide and source of the latest information for the physician. It is concise and constructive, unburdened by theories or contentions. Its purpose is to present clearly and directly everything that is useful in the older teachings on heart impairment and all that is practical in the maze of modern methods of heart investigation.

\* \*

*Diseases of the Nose and Throat*

By Charles J. Imperatori, M.D., Professor of Otolaryngology, and Herman J. Burman, M.D., Adjunct Professor of Otolaryngology, New York Polyclinic Medical School. 2nd Ed. J. B. Lippincott Company, Philadelphia. 1939.

This book will make a strong appeal to those who wish to know more about otolaryngology. It is well written; well and profusely illustrated. The ground is covered thoroughly in fifty-two chapters.

\* \*

*Operative Orthopedics*

By Willis C. Campbell, M.D., Memphis, Tenn. The C. V. Mosby Company, St. Louis. 1939. Price, \$12.50.

"He who would an orthopedist be" will find his meat in this book. It is most complete, even, one may say, to the citation of references of which there appear to be thousands. It is profusely illustrated. The author's long experience in this field certainly gives assurance of the excellence of his material and the worth-whileness of his observations. His skill is admitted. His opinion is sought by many. Therefore, his book should meet with ready acceptance, although not, perhaps, consensus, of all those who are co-workers in the field of orthopedics.

*Textbook of Clinical Neurology*

With an Introduction to the History of Neurology. By Israel S. Wechsler, M.D., Professor of Clinical Neurology, Columbia University. 4th Ed. W. B. Saunders Company, Philadelphia. 1931. Price, \$7.

Completely revised; presented in five parts: I — Method of examination; II — Spinal Cord; III—Peripheral Nerves; IV—Brain; V—Neuroses, followed by an introduction to the history of neurology and a fine index. Bibliographic references are appended to each chapter. A good book for the student.

\* \*

*Medical Jurisprudence and Toxicology*

By William D. McNally, M.D., Assistant Professor of Medicine and Lecturer in Toxicology, Rush Medical College, University of Chicago. W. B. Saunders Company, Philadelphia. 1939. Price, \$3.75.

A concise and thoroughly practical book for students of medicine, pharmacy and dentistry as well as for physicians. Dr. McNally stresses essential medicolegal facts such as giving medical evidence, the bounds of expert testimony, signs of death, determination of cause of sudden death from natural causes as well as from injuries, burns, abortion, etc., and methods of identifying the dead. An extensive chapter covers the technic of staining and other tests valuable in fixing legal responsibility and still another deals with the medicolegal aspects of x-ray and radium.

The balance of the book is devoted entirely to toxicology. The various and numerous poisons are classified according to type and include gaseous poisons, inorganic poisons, heavy metals, irritant poisons, alkaloidal and nonalkaloidal poisons, food poisoning and food-borne infections.

The properties, symptoms, fatal dosage and fatal period are given for each poison as well as treatment and antidotes. Post-mortem appearances of the body are also discussed.

\* \*

*Cardiovascular Diseases**Their Diagnosis and Treatment*

By David Scherf, M.D., Associate Professor of Clinical Medicine, and Linn J. Boyd, M.D., Professor of Medicine, New York Medical College. C. V. Mosby Company, St. Louis. 1939. Price, \$6.25.

The authors give a great deal of practical information for direct application without recourse to complicated methods and apparatus. The need of the student has been kept in mind, hence the book is written largely with that objective in mind. It is well arranged; makes no pretensions at completeness although none of the essential, must be known phases of heart disease are omitted. Students will do well to read this book.

*Medical Microbiology*

By Kenneth L. Burdon, Ph.D. Assistant Professor of Immunology and Bacteriology, Louisiana State University School of Medicine. The Macmillan Company, New York. 1939. Price, \$4.50.

A book that is relatively brief, though as scholarly in approach as the larger tomes and even more comprehensive than some.

It breaks away from tradition in several respects, notably in the first section of the book which carries unusually full descriptions and lists of all the principal varieties of microbes of medical importance. As a rule only the bacteria are thus described and the reader discovers viruses, etc., later, if at all.

Immunological and epidemiological considerations all precede discussions of particular disease processes, and in Part IV the traditional method of arrangement according to systematic classification of the bacteria is discarded and the individual diseases are introduced under the heading of the region of the body principally or primarily affected.

\* \*

*Textbook of Surgery*

By American Authors. Edited by Frederick Christopher, M.D. Associate Professor of Surgery, Northwestern University Medical School. 2nd Ed. W. B. Saunders Company, Philadelphia. 1939. Price, \$10.

Completely revised with many important additions, this work bids fair to continue to be accepted as a standard text for surgery.

\* \*

*Modern Clinical Psychiatry*

By Arthur P. Noyes, M.D., Superintendent Norristown State Hospital, Pennsylvania. 2nd Ed. W. P. Saunders Company, Philadelphia. 1939. Price, \$5.

A very practical, readable and informative little work based on clinical lectures given by the author to volunteer students spending their vacation in the study and observation of mental patients resident in an institution. Easy to read; easy to understand, hence should be helpful to students.

\* \*

*Surgery of The Eye*

By Meyer Wiener, M.D., Professor of Clinical Ophthalmology and Bennett V. Alvis, M.D., Assistant Professor of Clinical Ophthalmology, Washington University School of Medicine, St. Louis. W. B. Saunders Company, Philadelphia. 1939. Price, \$8.50.

A book for the ophthalmologist; very well illustrated; the various steps of many operations are depicted in such manner as to be a guide to their performance. Too much for the student.

*Varicose Veins*

By Alton Ochsner, M.D., Professor of Surgery, and Howard Mahorner, M.D., Assistant Professor of Surgery, Tulane University of Louisiana School of Medicine. The C. V. Mosby Company, St. Louis, 1939. Price, \$3.

An evaluation of clinical studies and methods of treatment of varicose veins commended highly in a foreword by Dr. Rudolph Matas. This work should appeal to every physician because it is a conservative presentation of a condition which is common and which does not always respond to treatment. The authors describe the various forms of treatment applicable to the various types of varicose veins, based on careful diagnosis of the particular type. The book is well illustrated and gives a long list of selected references to the literature.

♦ ♦

*The Infant and Child in Health and Disease*

By John Zahorsky, M.D., Professor of Pediatrics, St. Louis University School of Medicine, and Elizabeth Noyes, R.N., Instructor in Pediatrics, Children's Hospital, San Francisco. 2nd Ed. C. V. Mosby Company, St. Louis, 1939. Price, \$3.

Presenting all the needs of nursing education in an orderly, well balanced manner. The authors' long experience in this field is sufficient guarantee of the excellence and usefulness of this work.

♦ ♦

*Diagnosis and Management of Diseases of the Biliary Tract*

By R. Franklin Carter, M.D., Associate Professor of Surgery, Carl H. Greene, Associate Clinical Professor of Medicine, and John Russell Twiss, M.D., Assistant Clinical Professor of Medicine New York Post Graduate Medical School. Lea & Febiger, Philadelphia, 1939. Price, \$6.50.

This work represents the joint efforts of the physician, the surgeon, the roentgenologist, the biochemist and the bacteriologist.

An effort made to indicate the patients who should be treated medically and those in whom surgery is required. Methods of treatment are outlined which are based on the indications furnished by the diagnostic workup. Details are given of the medical, surgical and dietary management which have proved satisfactory and which may be accepted with confidence.

The book is divided into six parts: Etiology, diagnosis, medical and surgical treatment, results of surgical treatment and an appendix giving weight tables and food constituents. Illustrations, tables and diet prescriptions are helpful. Chapter bibliography is given. How much of that sort of thing is worth while?

*Anatomy of the Nervous System*

By Stephen W. Ranson, M.D., Ph.D., Professor of Neurology Northwestern University Medical School, Chicago. 6th Ed. W. B. Saunders Company, Philadelphia, 1939. Price, \$6.50.

A complete revision without material enlargement of the text. The subject is presented from the dynamic point of view rather than the static, with emphasis on the developmental and functional significance of structure. It is a text for the novice, not for the master.

♦ ♦

*Textbook of Bacteriology*

By Hans Zinsser, M.D., Consulting Bacteriologist Peter Bent Brigham Hospital and Children's Hospital, Boston, and Stanhope Bayne-Jones, M.D., Professor of Bacteriology Yale University Medical School, New Haven, Connecticut. 8th Ed. D. Appleton-Century Company, New York, 1939. Price, \$8.

This well and favorably known work has been completely rewritten to keep pace with the rapid advances made in bacteriology and immunology. The medical point of view has been retained. The section on pathogenic protozoa has been omitted; the index has been shortened to make it more workable; new illustrations have been added. Although a rather large book, it is packed with information which the student will do well to have at his fingers' ends when he is faced with the management and control of infectious diseases.

♦ ♦

*Medical State Board Examinations*

By Harold Rypins, M.D., Secretary, New York State Board of Medical Examiners. 4th Ed. J. B. Lippincott Company, Philadelphia, 1939.

A very good book for every physician to have for purpose of review. It is concise but covers the entire field adequately.

♦ ♦

*The Endocrine Glands*

By Max A. Goldzieher, M.D., Endocrinologist Gouverneur Hospital and Brooklyn Women's Hospital, New York. D. Appleton-Century Company, New York, 1939. Price, \$10.

An extremely detailed discussion of endocrine disorders on the basis of their morphology, physiology and morbid anatomy, with a new classification of the endocrinopathies and their diagnosis and treatment. The author stresses throughout his personal experiences and the value of therapy. The treatment of endocrine disorders is made the keynote of the book. It is well illustrated and chapter references to the bibliography are given. In the author's experience, treatment is far from being hopeless.



*Manual of Diseases of the Eye*

By Charles H. May, M.D., Consulting Ophthalmologist to Bellevue, Mt. Sinai and French Hospitals, New York, with the Assistance of Dr. Charles A. Perera, M.D., Instructor in Ophthalmology, Columbia University College of Physicians and Surgeons. 16th Ed. William Wood & Company, Baltimore. 1939. Price, \$4.

This remains a good student textbook.

♦ ♦

*Treatment by Diet*

By Clifford J. Barborka, M.D., Department of Medicine, Northwestern University Medical School, Chicago. 4th Ed. J. B. Lippincott Company, Philadelphia. 1939.

A practical and workable method is presented of prescribing diets and applying treatment by diet to health and disease. The many hundreds of diets given make prescribing easy. Even the layman can do it.

♦ ♦

*Do You Want to Become a Doctor?*

By Morris Fishbein, M.D., Editor Journal of the American Medical Association. Frederick A. Stokes Company, New York. 1939. Price, \$1.50.

Surveys the whole field of medicine; describes in detail the several stages of academic preparation for the study of medicine; discusses the opportunities, work and obligations in general practice. The student is told how to select a college and the courses of study best suited to his purpose. The essentials of a good medical school are defined; gives a list of approved medical schools; gives cost of medical education; discusses the internship—in short, everything the intending physician may and should want to know about medicine.

♦ ♦

*Pathogenic Microorganisms*

By William Hallock Park, M.D., Late Professor of Bacteriology and Hygiene, New York University College of Medicine, and Anna Wessels Williams, M.D., Former Assistant Director of Laboratories of the Department of Health, New York City. 11th Ed. Lea & Febiger, Philadelphia. 1939. Price, \$8.00.

A record of forty years of experience. The present edition covers the most recent work in bacteriology and immunology. A section on bacterial variation has been included and the sections on pathogenic yeasts and molds, the pathogenic protozoa and the filterable viruses have been completely revised or rewritten in recognition of the increasingly important role played of these infectious agents in the diseases of man. The bibliography has again been enlarged to include every reference bearing on the essential advances of the last few years.

*Surgical Applied Anatomy*

By Sir Frederick Treves. 10th Ed. Edited and revised by Lambert Rogers, F.R.C.S., etc., Professor of Surgery, University of Wales. Lea & Febiger, Philadelphia. 1939. Price, \$4.50.

While this closely written text deals with surgical anatomy and covers all the essential facts, it contains much material of clinical value revealing many surgical dangers and pitfalls. For half a century it has been accepted as a practical and trustworthy guide and one of the best treatises on surgical anatomy available in our language. In its present edition, it has been brought thoroughly up-to-date and it may be accepted as absolutely authoritative and a mine of readily accessible information.

♦ ♦

*Nitrous Oxide-Oxygen Anesthesia*

McKesson-Clement Viewpoint and Technique. By F. W. Clement, M.D., Director of Anesthesia at Flower Hospital, etc. Lea & Febiger, Philadelphia. 1939. Price, \$4.

This work presents the technique in the administration of nitrous oxide-oxygen anesthesia as developed by the late Dr. E. I. McKesson and by the author.

♦ ♦

*The Art of Anaesthesia*

By Paluel J. Flagg, M.D. New York City. 6th Ed. J. B. Lippincott Company, Philadelphia. 1939.

A thorough revision, carefully and well made. The author is convinced that the most important trend in the field of anesthesia seems to be the right and the duty of the anesthetist to resume his original title and to practice as a pneumatologist, thereby increasing his activity and proficiency in the employment of gases for the saving of life and the treatment of clinical diseases.

♦ ♦

*The Rectum and the Colon*

By E. Parker Hayden, M.D., Assistant in Surgery, Harvard Medical School. Lea & Febiger, Philadelphia. 1939. Price, \$5.50.

The work here described is largely surgical in nature. The selection of cases for operation, the preparation of the patient, the operative steps and the after-treatment are all fully described. There are important chapters on methods of examination and diagnosis, on anesthesia, and on the treatment of hemorrhoids and fissure both by surgical and by injection methods. Major surgical procedures as applied to diverticulitis, multiple polyposis, ulcerative colitis, and malignant tumors are also described. Every phase of surgical treatment is fully covered. The text is abundantly illustrated with photographs and drawings especially prepared for it.



### *Clinical Diagnosis by Laboratory Methods*

By James C. Todd, M.D., Late Professor of Clinical Pathology, University of Colorado School of Medicine, and Arthur H. Sanford, M.D., Professor of Clinical Pathology, University of Minnesota (Mayo Foundation). 9th Ed. W. B. Saunders Company, Philadelphia. 1939. Price, \$6.

The care and thoroughness of the revision of this book ensures its acceptance as a standard text for clinical pathology. The chapter on the use of the microscope deserves special mention because for the student it should have great value. How many students know anything about the microscope or its proper use? The Appendix, setting forth laboratory methods and equipment, will have value for the practitioner who is compelled to carry on in this field on his own. The index-outline of laboratory findings in important diseases has value for both student and practitioner.

♦ ♦

### *Symposium on Synapse*

By Herbert S. Gasser; Joseph Erlanger; Detlev W. Bronk; Rafael Lorente de No and Alexander Forbes. Reprinted from *Journal of Neurophysiology*, 1939, 2, 361-472. Charles C. Thomas, Springfield, Illinois. 1939. Price, \$2 bound; \$1.50 in paper covers.

The material presented in this brochure (a reprint) formed the subject matter of a symposium on the mechanism of synaptic transmission held in Toronto, April 29, 1939, under the auspices of the American Physiological Society at its annual meeting.

♦ ♦

### *Baptism of the Infant and the Fetus.*

An Outline for the Use of Doctors and Nurses. By Reverend J. R. Bowen, Chaplain St. Joseph Mercy Hospital, Dubuque, Iowa. 4th Ed. The M. J. Knippel Co., Dubuque. 1939.

Instruction how to baptize under all conditions of delivery fraught with danger to the life of the child, born or unborn, and the fetus.

♦ ♦

### *Primer of Allergy*

By Warren T. Vaughan, M.D., Richmond, Virginia. The C. V. Mosby Company, St. Louis, Missouri. 1939. Price, \$1.50.

The author offers this book to the patient as "a reasonably good bedtime story." It is just that. It is readable, enjoyable, amusing and replete with useful information for him who is a sufferer from some form of allergy. The chapter on "general orders—directions to the patient" should be most helpful, if followed by the patient. Even the physician will find the book interesting. It is well worth the price.

### *Diseases of the Skin*

By Richard L. Sutton, M.D., Professor of Dermatology, and Richard L. Sutton, Jr., M.D., Associate in Dermatology, University of Kansas School of Medicine. 10th Ed. The C. V. Mosby Company, St. Louis. 1939. Price, \$15.

Any book which presents 1,473 beautiful illustrations of usual and unusual lesions of the skin is a book well worth having. But, it is hardly a book for the undergraduate medical student because he does not have the opportunity nor the time to acquaint himself with all skin lesions. For the general practitioner or for the specialist it must have great value. The colored illustrations are works of art. Incidentally, the book fairly bristles with references which should please the specialist.

♦ ♦

### *Textbook of Medical Treatment*

By Various Authors. Edited by D. M. Dunlop, M.D., Professor of Therapeutics and Clinical Medicine, University of Edinburgh; L. S. P. Davidson, M.D., Professor of Medicine, University of Edinburgh; J. W. McNee, M.D., Regius Professor of Practice of Medicine, University of Glasgow; with a Foreword by A. J. Clark, M.D., Professor of Materia Medica, University of Edinburgh. A William Wood Book. The Williams and Wilkins Company, Baltimore. 1939. Price, \$8.

Both students and practitioners will appreciate this book. It is extremely explicit in regard to treatment, leaving nothing to guess. It is not a textbook but a veritable encyclopedia of therapeutics; what to do, when to do it and how to do it.

♦ ♦

### *Diagnostic Signs, Reflexes and Syndromes*

By Wm. Egbert Robertson, M.D., Visiting Physician, Medical Division, Philadelphia General Hospital, and Harold F. Robertson, M.D., Instructor in Medicine, University of Pennsylvania. F. A. Davis Company, Philadelphia. 1939. Price, \$3.50.

Physical signs, reflexes and syndromes, descriptive, eponymic or by system, are presented in alphabetical order thus making the use of the book a very simple matter. Students will appreciate the book. It is compact; of convenient size, but gives more information than a dictionary. It is a most commendable venture into a new field.

♦ ♦

### *Practical Obstetrics*

By P. Brooke Bland, M.D., Emeritus Professor of Obstetrics and Thaddeus L. Montgomery, M.D., Clinical Professor of Obstetrics, Jefferson Medical College. 3rd Ed.

The brevity and directness of this text and the many fine illustrations make this an ideal text for students.

essor of  
on, Jr.,  
versity  
th Ed.  
1. 1997.

autiful  
sons of  
t. Ba,  
aduste  
t have  
cquaint  
general  
t have  
na are  
fairly  
pleasu

D. M.  
peutics  
Edin-  
fessor  
th; J.  
Pae-  
sgow;  
M.D.,  
ity of  
The  
imore,

ap-  
xplicit  
ng to  
itable  
o do,

met  
niting  
elphia  
rtson,  
ity of  
Phila-

ence,  
pro-  
g the  
Stu-  
com-  
more  
most

Pro-  
fess-  
botat-  
d.  
tant  
this